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INTRODUCTORY NOTES

Notes on Transliteration

Vowel-Sounds

a has the sound of *a* in 'woman.'
ā has the sound of *a* in 'father.'
e has the vowel-sound in 'grey.'
i has the sound of *i* in 'pin.'
ī has the sound of *i* in 'police.'
o has the sound of *o* in 'bone.'
u has the sound of *u* in 'bull.'
ū has the sound of *u* in 'flute.'
ai has the vowel-sound in 'mine.'
au has the vowel-sound in 'house.'

It should be stated that no attempt has been made to distinguish between the long and short sounds of *e* and *o* in the Dravidian languages, which possess the vowel-sounds in 'bet' and 'hot' in addition to those given above. Nor has it been thought necessary to mark vowels as long in cases where mistakes in pronunciation were not likely to be made.

Consonants

Most Indian languages have different forms for a number of consonants, such as *d*, *t*, *r*, &c., marked in scientific works by the use of dots or italics. As the European ear distinguishes these with difficulty in ordinary pronunciation, it has been considered undesirable to embarrass the reader with them; and only two notes are required. In the first place, the Arabic *k*, a strong guttural, has been represented by *k* instead of *q*, which is often used. Secondly, it should be remarked that aspirated consonants are common; and, in particular, *dh* and *th* (except in Burma) never have the sound of *th* in 'this' or 'thin,' but should be pronounced as in 'woodhouse' and 'boathook.'

Burmese Words

Burmese and some of the languages on the frontier of China have the following special sounds:—

aw has the vowel-sound in 'law.'
ö and ü are pronounced as in German.
gy is pronounced almost like *j* in 'jewel.'
ky is pronounced almost like *ch* in 'church.'
th is pronounced in some cases as in 'this,' in some cases as in 'thin.'
w after a consonant has the force of *uw*. Thus, *ywa* and *pwe* are disyllables, pronounced as if written *yuwa* and *puwe*.

It should also be noted that, whereas in Indian words the accent or stress is distributed almost equally on each syllable, in Burmese there is a tendency to throw special stress on the last syllable.

General

The names of some places e.g. Calcutta, Bombay, Lucknow, Cawnpore—have obtained a popular fixity of spelling, while special forms have been officially prescribed for others. Names of persons are often spelt and pronounced differently in different parts of India; but the variations have been made as few as possible by assimilating forms almost alike, especially where a particular spelling has been generally adopted in English books.

Notes on Money, Prices, Weights and Measures

As the currency of India is based upon the rupee, all statements with regard to money throughout the *Gazetteer* have necessarily been expressed in rupees, nor has it been found possible to add generally a conversion into sterling. Down to about 1873 the gold value of the rupee (containing 165 grains of pure silver) was approximately equal to 2*s*., or one-tenth of a £; and for that period it is easy to convert rupees into sterling by striking off the final cipher (Rs. 1,000 = £100). But after 1873, owing to the depreciation of silver as compared with gold throughout the world, there came a serious and progressive fall in the exchange, until at one time the gold value of the rupee dropped as low as 1*s*. In order to provide a remedy for the heavy loss caused to the Government of India in respect of its gold payments to be made in England, and also to relieve foreign trade and finance from the inconvenience due to constant and unforeseen fluctuations in exchange, it was resolved in 1893 to close the mints to the free coinage of silver, and thus force up the value of the rupee by restricting the circulation. The intention was to raise

the exchange value of the rupee to 1*s.* 4*d.*, and then introduce a gold standard (though not necessarily a gold currency) at the rate of Rs. 15 = £1. This policy has been completely successful. From 1899 onwards the value of the rupee has been maintained, with insignificant fluctuations, at the proposed rate of 1*s.* 4*d.*; and consequently since that date three rupees have been equivalent to two rupees before 1873. For the intermediate period, between 1873 and 1899, it is manifestly impossible to adopt any fixed sterling value for a constantly changing rupee. But since 1899, if it is desired to convert rupees into sterling, not only must the final cipher be struck off (as before 1873), but also one-third must be subtracted from the result. Thus Rs. 1,000 = £100 − ⅓ = (about) £67.

Another matter in connexion with the expression of money statements in terms of rupees requires to be explained. The method of numerical notation in India differs from that which prevails throughout Europe. Large numbers are not punctuated in hundreds of thousands and millions, but in lakhs and crores. A lakh is one hundred thousand (written out as 1,00,000), and a crore is one hundred lakhs or ten millions (written out as 1,00,00,000). Consequently, according to the exchange value of the rupee, a lakh of rupees (Rs. 1,00,000) may be read as the equivalent of £10,000 before 1873, and as the equivalent of (about) £6,667 after 1899; while a crore of rupees (Rs. 1,00,00,000) may similarly be read as the equivalent of £1,000,000 before 1873, and as the equivalent of (about) £666,667 after 1899.

Finally, it should be mentioned that the rupee is divided into 16 annas, a fraction commonly used for many purposes by both natives and Europeans. The anna was formerly reckoned as 1½*d.*; it may now be considered as exactly corresponding to 1*d.* The anna is again subdivided into 12 pies.

The various systems of weights used in India combine uniformity of scale with immense variations in the weight of units. The scale used generally throughout Northern India, and less commonly in Madras and Bombay, may be thus expressed: one maund = 40 seers; one seer = 16 chittaks or 80 tolas. The actual weight of a seer varies greatly from District to District, and even from village to village; but in the standard system the tola is 180 grains Troy (the exact weight of the rupee), and the seer thus weighs 2·057 lb., and the maund 82·28 lb. This standard is used in official reports and throughout the *Gazetteer*.

For calculating retail prices, the universal custom in India is to express them in terms of seers to the rupee. Thus, when prices change, what varies is not the amount of money to be paid for the

same quantity, but the quantity to be obtained for the same amount of money. In other words, prices in India are quantity prices, not money prices. When the figure of quantity goes up, this of course means that the price has gone down, which is at first sight perplexing to an English reader. It may, however, be mentioned that quantity prices are not altogether unknown in England, especially at small shops, where pennyworths of many groceries can be bought. Eggs, likewise, are commonly sold at a varying number for the shilling. If it be desired to convert quantity prices from Indian into English denominations without having recourse to money prices (which would often be misleading), the following scale may be adopted—based upon the assumptions that a seer is exactly 2 lb., and that the value of the rupee remains constant at 1*s.* 4*d.*: 1 seer per rupee = (about) 3 lb. for 2*s.*; 2 seers per rupee = (about) 6 lb. for 2*s.*; and so on.

The name of the unit for square measurement in India generally is the *bigha*, which varies greatly in different parts of the country. But areas have always been expressed throughout the *Gazetteer* either in square miles or in acres.

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Jaisalmer State.—The most western and the third in size of the States of Rājputāna, lying between 26° 4′ and 28° 23′ N. and 69° 30′ and 72° 42′ E., with an area of 16,062 square miles. It is bounded on the north by Bahāwalpur; on the west by Sind; on the south and east by Jodhpur; and on the north-east by Bīkaner. The country is almost entirely a sandy waste, forming part of what is known as the Great Indian Desert. In the neighbourhood of Jaisalmer town, and within a circuit of about 40 miles, the soil is very stony, and numerous low rocky ridges and hard undulating plains occur; but with this exception the general aspect is that of an interminable sea of sandhills of all shapes and sizes, some rising to a height of 150 feet. The sandhills in the west are covered with *phog* (*Calligonum*) bushes, and those in the east with tufts of long grass. Shifting sands, locally termed *dhrians*, are common. Nothing can well bear a more desolate appearance. The villages are few and far between, sparsely populated, and consist as a rule of a few circular huts or wigwams collected round a well of brackish water. A small stream called the Kākni rises near the village of Kotri, 17 miles south of the capital, and after flowing first in a northerly and next in a westerly direction, forms a lake called the Bhuj *jhīl*. In years of heavy rainfall it deviates from its usual course, and instead of turning to the west continues north for about 12 miles till checked by the recently constructed Daiya dam.

Physical aspects.

The surface of the country is to a large extent covered by dunes of blown sand of the transverse type: that is, with their longer axes at right angles to the direction of the prevailing wind. Rocks of Jurassic age, such as sandstones, shales, and limestones crop out from beneath the sand, and a large area of Nummulitic rock occurs to the north-west of the capital.

The fauna is not much varied. Wild hog and leopards are occasionally seen; antelopes are found in the east; while the Indian gazelle, the bustard, and several species of sand-grouse are more or less common.

The climate is dry and healthy, but the hot season is very prolonged and the heat is intense and trying. The temperature is highest in May and June, when hot winds prevail with much violence, while the coldest period is in January, the thermometer frequently falling below freezing-point. The rainfall is precarious and varies in different parts. The annual fall at the capital since 1883 has averaged between 6 and 7 inches. Statistics for other places in the State are available only since 1895, and they show that the fall is usually a little greater in the east and south, and less as one proceeds west. The year of heaviest rainfall was 1883, when more than 15 inches were registered at Jaisalmer, while in 1899 no rain at all fell at Khābha to the south-west and Rāmgarh to the north-west.

History.

The chiefs of Jaisalmer are Rajputs of the Jādon clan, and claim descent from the deified hero, Krishna. According to the annals of the State, the tribe became dispersed at the death of Krishna, and many of them, including two of his sons, proceeded northwards beyond the Indus and settled there. One of their descendants, Gaj, is said to have built a fort called Gajni (identified by Tod as the Ghazni of Afghānistān, but believed by Cunningham to be in the vicinity of Rāwalpindi): but being defeated and killed in a battle with the king of Khorāsān, his followers were driven southward into the Punjab, where Sālivāhan established a new capital, which he called after himself, and which has been identified with Siālkot. This chief subsequently defeated the Indo-Scythians in a decisive battle near Kahror, within 60 miles of Multān. So great was the fame of this victory that the conqueror assumed the title of Sākāri, or 'foe of the Sakas' (Scythians), and further to commemorate the event established the Sāka era from the date of the battle (A. D. 78), an epoch which is still in general use throughout India. Sālivāhan's grandson, Bhāti, was a renowned warrior who conquered many of the neighbouring chiefs, and from him the tribe now takes the name of Bhāti Jādons. Subsequently, the Bhātis were gradually driven southwards till, crossing the Sutlej, they took refuge in the Indian desert which has since been their home. Here they came into contact with various Rājput clans, such as the Būtas and Chunnas (both extinct), the Barāhas (now Musalmāns), the Langāhas, and the Sodhas and Lodras (both branches of the Paramāras). Their first capital was at Tanot, still in Jaisalmer territory, which was founded about the middle of the eighth century; but being ousted from this, Deorāj, the first chief to assume the title of Rāwal, built Deogarh or Deorāwar in 853, now called Derāwar in Bahāwalpur territory, and established himself there. Shortly afterwards, the capital was changed to Lodorva, an immense city with twelve gates taken from the Lodra Rājputs, the ruins of which lie 10 miles west-by-north of Jaisalmer town. Lodorva

was, however, ill adapted for defence, so Jaisal sought for a stronger place and founded the fort and city of Jaisalmer in 1156. He was succeeded by several warlike chiefs who were constantly engaged in raids and battles, but their passion for freebooting proved disastrous. Authentic history begins at the end of the thirteenth and the beginning of the fourteenth centuries, when the Bhātis so enraged Alā-ud-dīn that his army captured and sacked the fort and city of Jaisalmer, which for some time remained deserted. Sabal Singh, who began to rule about 1651, was the first of the Bhāti chiefs who held his dominions as a fief of the Delhi empire. According to the annals of the Kishangarh State, he served in Peshāwar and Kandahār, and received the grant of Jaisalmer through the intercession of his cousin, Rājā Rūp Singh of Kishangarh. Jaisalmer had now arrived at the height of its power; the territory extended north to the Sutlej, comprised the whole of Bahāwalpur westward to the Indus, and to the east and south included many districts subsequently annexed by the Rāthors and incorporated in Mārwār and Bikaner. But from this time till the accession of Mahārāwal Mulrāj in 1762 the fortunes of the State rapidly declined, and most of the outlying districts were lost. Owing, however, to its isolated situation it escaped the ravages of the Marāthās, and it was partly for this reason that Jaisalmer was one of the last States in Rājputāna to be taken under the protection of the British Government. By the treaty dated December 12, 1818, concluded with Mulrāj, the succession was guaranteed to his posterity; the chief was to be protected from serious invasions and dangers to his State, provided he was not the originator of the quarrel, and he was to act in subordinate co-operation with the British Government. Apart from this treaty, the only important events of Mulrāj's rule were the cruel atrocities of his minister, Mehta Sālim Singh. According to Tod, this man, a Mahājan by caste and a Jain by religion, united 'the subtlety of the serpent to the ferocity of the tiger.' He put to death nearly all the relatives of the chief. With commercial men and with the industrious agriculturists or pastoral communities 'he had so long forfeited all claim to credit that his oath was not valued at a single grain of the sand of their own desert dominion', and finally he drove out the Pāliwāl Brāhmans, famous as enterprising cultivators and landholders, who had constructed most of the *kharīns* or irrigation tanks now to be found in the State, and whose solid well-built villages still stand deserted, marking an era of prosperity to which it will be difficult for the State ever again to attain. Sālim Singh, however, was mortally wounded by a Rājput in 1824, and, as there was some fear that the wound might heal, his wife gave him poison. Mulrāj, who had died four years before, was succeeded by his grandson Gaj Singh. In 1829 a Bikaner army invaded Jaisalmer to revenge some injuries committed

by subjects of the latter; but the British Government interfered, and through the arbitration of the Mahārāna of Udaipur the dispute was settled. In 1844, after the British conquest of Sind, the forts of Shāhgarh, Garsia, and Ghotāru, which had formerly belonged to Jaisalmer, were restored; and in 1846 Gaj Singh died. His widow adopted his nephew Ranjīt Singh, who ruled till 1864, when he was succeeded by his younger brother, Bairi Sāl. On the death of the latter in 1891, his widows adopted Syām Singh, son of Thākur Kushāl Singh of Lāthi; and the choice being confirmed by the Government of India, Syām Singh succeeded and took the family name of Sālivāhan. He was born in 1887, and has been a student at the Mayo College at Ajmer since 1894. The Mahārāwal of Jaisalmer is entitled to a salute of 15 guns.

Among places of archaeological interest may be mentioned the village and fort of Birsilpur (in the north-east), said to have been founded in the second century; Tanot, the first desert capital of the Bhātis, with its fort and temple dating from the eighth century; Lodorva, which has a Jain temple said to be over 1,000 years old; and Sirwa, a village about 24 miles south-by-south-east of Jaisalmer town, which possesses a building with thirty-two pillars said to have been erected in 820.

Population.

The number of towns and villages in the State is 472, and the population at each Census was: (1881) 108,143, (1891) 115,701, and (1901) 73,370. The decrease of over 36 per cent. in the last decade was due to the famine of 1899-1900, and excessive mortality and emigration resulting therefrom. The only town in the State is the capital, JAISALMER (population, 7,137). The State is divided into sixteen districts or *hukūmats*, the areas of which vary from about 2,220 to 262 square miles; one district has 100 villages, while two others have but one each; and again one district has one person per square mile, while the most densely populated has but fifteen. Indeed, the density per square mile for the whole State is but 4·56. In 1901 Hindus numbered 51,990, or 70 per cent. of the total; Musalmāns, 18,648, or more than 25 per cent.; Animists, 1,551; and Jains, 1,178. The languages mainly spoken are Mārwārī and Sindī.

The most numerous tribe is that of the Rājputs, who number 31,000, or over 42 per cent. of the total, but more than one-third of them are Musalmāns. Next come the Chamārs, who number 8,900. Shaikhs 5,600, and Mahājans 5,200. More than 36 per cent. of the people are engaged in or dependent on agriculture: but they lead a wandering life, migrating regularly to Sind in the cold season, and many are graziers and keep herds of camels, cattle, sheep, and goats.

The soil is for the most part light and sandy, and, as the rain sinks in and does not flow off the surface, a small rainfall suffices for the crops. Save in the few places where water can be stored, only rains crops such as *bājra*, *jowar*, *mūng*, *moth*, and *til* are grown, and the system of cultivation is rude. Camels are largely used for ploughing; the ploughs are light and just scratch the ground; the seed is sown broadcast, and after it has sprouted a few showers at long intervals bring it to maturity. No agricultural statistics are available; but a good deal of cultivation goes on during the rains, and in favourable seasons (which are few and far between) the produce is said to be just sufficient for the immediate wants of the people. Where the soil is harder and the surroundings hilly and rocky, irrigation is carried on to a small extent from *kharīns* or shallow depressions into which the rain-water flows. Wheat and gram are sown in the beds of these tanks, and only very occasionally can the water be conveyed by ducts to land outside. Since 1892 about Rs. 65,000 has been spent in constructing and repairing *kharīns*, and there are now 377 of them. Wells, being on the average 250 feet in depth, cannot be used for irrigation.

Agriculture.

The wealth of the rural population consists almost entirely in their herds of camels, cattle, sheep, and goats, which thrive in spite of the arid nature of the country. The camels are famous for their easy paces, speed, and hardiness; they plough and harrow the ground, bring home the harvests, carry food and water, and are both ridden and driven. Cattle are bred in considerable numbers, and are of a good class; while the sheep and goats, though small, fatten well.

Salt of fair quality is found in several localities, but is manufactured only at Kānod, about 20 miles north-east of the capital. Brine occurs 10 feet below the surface, and is drawn from pits by the weighted pole and bucket. It is then exposed to evaporation in pans, and a small-grained white salt is obtained. The out-turn is limited by the agreement of 1879 with the British Government to 15,000 maunds a year, entirely for local consumption and use. There are several quarries of limestone near the capital; the stone produced is very fine, even-grained, and compact, of a buff or light-brown colour, and admirably adapted for carving. It takes a fair polish, and was at one time used for lithographic blocks. Another variety of yellow limestone is found at the village of Hābur, 28 miles north-west of the capital; large quantities of an iron ore resembling red ochre are blended with it. Sandstone quarries are worked at Bhadāsar, 17 miles north-west of Jaisalmer town, and fuller's earth and other clays exist in several places.

Trade and communications.

The manufactures are confined to blankets of sheep's wool, small bags and druggets of goats' and camels' hair, and stone cups and platters. The chief exports are wool, *ghī*, camels, cattle, sheep, and fuller's earth; and the chief imports are grain, cotton, piece-goods, and tobacco. The trade is mostly with Sind.

No railways traverse the State, the nearest station being Barmer on the Jodhpur-Bīkaner Railway, some 90 miles south of Jaisalmer town; and, with the exception of about 6 miles of metalled road in and near the capital, the communications are mere sandy tracks, sometimes marked by milestones. There is but one post office in the State, the mails being carried by runners to and from Barmer, which also possesses the nearest telegraph office.

Famine.

The State is visited by constant scarcities, caused by short rainfall or damage done by locusts; indeed hardly a year passes in which a failure of crops does not occur in some part of Jaisalmer. Yet the people suffer less than one would expect, as emigration is an annual event. Practically the only harvest is that sown during the rains; and as soon as it is gathered in September or October, large numbers leave every year to find employment in Sind and Bahāwalpur. The people are, by nature and of necessity, self-reliant; they are indifferent, if not averse, to assistance from the State coffers, and many of them consider it so derogatory to be seen earning wages on relief works in their own country that they prefer migration. The Darbār, though its revenue is small, has during recent years done what it could to relieve distress and provide tanks for the storage of water; but a scanty rainfall means not only no crops or indifferent ones, but also difficulty in finding water for man and beast, as well as grass and fodder. The result is that, on the first approach of scarcity, the people leave in larger numbers than usual with their flocks and herds for Sind. Emigration, consequently, has always been, and must continue to be, the main form of relief. No detailed accounts are available of the famines or scarcities prior to 1891–2. In that year, and again in 1895–7 and 1901–2, scarcities affected from one-half to the whole of the State. Relief works were started, but generally failed to attract labour, and a certain amount of gratuitous relief was given. The direct expenditure varied from Rs. 4,000 in 1891–2 to Rs. 40,000 in 1895–7; and as, under the land revenue system, the Darbār takes a share of the produce, its losses under this head were considerable. The famine of 1889-1900 was a severe one. The rainfall was less than an inch and the whole State was affected. About 50,000 people emigrated to Sind and Bahāwal pur, taking with them 12 per cent. of the horned cattle and

20 per cent. of the camels. Assuming that half of these animals were brought back, the State lost about 148,000 cattle and over 7,400 camels. Relief works and poorhouses were open for twelve months, and more than 410,000 units were relieved. The total expenditure was about Rs. 52,000.

Administration.

During the minority of Mahārāwal Sālivāhan the administration is being conducted by a Dīwān and Council of four members, under the general superintendence of the Resident, Western Rājputāna States. In each of the sixteen *hukūmats* there is a *hākim*. The lowest courts are those of the *hākims*; fourteen of them can punish with imprisonment up to fifteen days and fine not exceeding Rs. 50, while the remaining two, and also the city *kotwāl*, can pass a sentence of one month's imprisonment. All these officers have certain civil powers. But most petty civil suits are decided by a *panchāyat* of three or more members appointed by the parties concerned, the award being final; or if the parties cannot agree, by a body known as a *sultāni panchayat* appointed by the *hākim* or *kotwāl* as the case may be. The Sadr Criminal Court, besides hearing appeals against the orders of the lower courts, tries cases beyond their powers, and can sentence to imprisonment up to one year and fine up to Rs. 300. The Sadr Civil Court also hears appeals against the orders of the lower courts (including the awards of *sultāni panchāyats*), and tries suits beyond their powers. Decrees for sums exceeding Rs. 5,000 are subject to the confirmation of the Resident. Here again many of the suits are decided by arbitrators chosen by the parties. The Dīwān hears appeals against the orders of the Sadr Criminal and Civil Courts, and tries such original cases as are beyond the powers of the former. He can sentence up to two years' imprisonment and Rs. 500 fine; sentences exceeding these limits, and all sentences in cases of homicide and dacoity, are subject to the confirmation of the Resident. The court of the Resident is the highest in the State; besides dealing with such cases as require its confirmation, it can call for the proceedings in any case and revise the orders passed.

The normal revenue of the State is nearly one lakh, the chief sources being customs, about Rs. 48,000; and land, about Rs. 16,000. The ordinary expenditure may be put at about Rs 88,000, the main items being: cost of administrative staff (civil and judicial), Rs 26,000; army and police, Rs. 18,000; palace expenditure (including the Mahārāwal's education), Rs. 12,000; and stables (including elephants, camels, &c.), about Rs. 10,000. The famines and scarcities which have been so frequent during the past decade have not only reduced the revenue, but have necessitated much extraordinary expenditure,

with the result that at the present time the State owes about 2 lakhs to the British Government.

Jaisalmer has its own coinage, called *Akhai shāhi* after Mahārāwal Akhai Singh, who established a mint at the capital in 1756. The local rupee in 1895 was worth more than 15 British annas, but now exchanges for about 11; its value fluctuates almost daily, and has been as low as 9 annas. The mint has not been worked since 1899, and the *Akhai shāhi* coins will be converted as soon as possible.

The land revenue system has undergone no changes for a long period, and neither a survey nor any regular settlement has been undertaken. The revenue is mostly paid in kind. Where wheat or gram is grown, the State takes from one-fifth to one-sixth of the produce; and of the rains crops from one-fifth to one-eleventh. There are four different modes of estimating the State share of the out-turn. In the first, the crop is valued when standing; in the second, when cut, but before threshing; in the third, after it has been threshed out; and in the fourth, from the condition of the bare standing stalks. In addition to the portion payable to the State, the cultivator has to settle the demands of the men told off to watch the crops in the Darbār's interests and of certain other officials; these demands collectively amount to about half of what is taken by the State. In places, the land revenue is paid in cash at Rs. 2 (local currency) for as much land as can be cultivated with a pair of bullocks. Of the 471 villages in Jaisalmer, 239 are *khālsa*, or pay revenue direct to the State, 88 are held by *jāgīrdārs*, 24 as charitable grants, 11 under title-deeds, 99 in *bhūm*, and 10 for services to the State. Only one of the *jāgīrdārs* pays tribute; but all serve the Darbār when called on, pay *meota* or fee on succession, and present the chief with a horse on certain occasions. Lands given in charity (*sāsan*) enjoy complete immunity from all State dues and are practically grants in perpetuity. Those who hold under title-deeds (*patta*) or for service rendered to the State pay nothing, but retain their estates at the pleasure of the Darbār; while the *bhūmiās* have to serve when called on and pay a fixed sum yearly, as well as certain sums on such occasions as the chief's accession, marriage, &c.

The State troops number 220 of all arms: namely, 39 cavalry, 168 infantry, and 13 artillerymen. Out of 25 guns, 17 are serviceable. The annual expenditure on the army is about Rs. 10,000. The police force numbers 152 men, of whom 72 are mounted, chiefly on camels, and the annual cost is about Rs. 9,000. There is one jail (at the capital), and small lock-ups in the districts.

In regard to the literacy of its population Jaisalmer stands tenth among the twenty States and chiefships of Rājputāna, with 2·9 per cent. (5·4 males and 0·1 females) able to read and write. Excluding indigenous schools managed by Jatis (Jain priests), the State now contains

three schools. In 1901 the vernacular alone was taught, the attendance was 69, and the expenditure about Rs. 600. In 1903 English classes were started at the capital, and the attendance at the three institutions has now risen to 183 and the expenditure to about Rs. 1,100. No fees are charged.

The State possesses a small hospital and a lunatic asylum, both at the capital, which cost about Rs. 3,000 a year. A staff of vaccinators is employed, who in 1904-5 successfully vaccinated 1,104 persons, or 15 per 1,000 of the total population.

[C. K. M. Walter, *Gazetteer of Jaisalmer* (1877); *Rājputāna Gazetteer*, vol. ii (1879, under revision); *Report on Famine-Relief Operations during* 1896-7; A. Adams, *The Western Rājputāna States* (1899).]

Jaisalmer Town.—Capital of the State of the same name in Rājputāna, situated in 26° 55′ N. and 70° 55′ E., about 90 miles north of the Jodhpur-Bīkaner Railway at Barmer, and approximately 1,200 miles north-west of Calcutta, and 600 north of Bombay. Population (1901), 7,137. The town was built by and named after Rāwal Jaisal in 1156. It stands at the south end of a low range of hills, and is surrounded by a substantially built stone wall, 3 miles in circuit, 10 to 15 feet high, 5 feet thick, and strengthened by bastions and corner towers. The two main entrances, one on the west and the other on the east, are connected by a metalled and paved road, fairly wide in most parts, which is the principal thoroughfare; the other streets are chiefly narrow passages—narrowest where some of the finest houses stand, as the well-to-do were able to encroach when rebuilding or improving their residences. A large portion of the space within the walls is unoccupied, but the ruins lying about prove that the place must have been far more populous in former times. To the south, on a hill overlooking the town, stands the fort. This hill is about 250 feet above the surrounding country, and 500 yards long by 250 wide at its greatest diameter. It is entirely covered with buildings and defences, and the base is surrounded by a buttress wall of solid blocks of stone about 15 feet high, above which the hill projects and supports the ramparts, forming a double line of defence. The bastions are in the form of half towers, surmounted by high turrets and joined by short thick walls; these again support battlements which form a complete chain of defence about 30 feet above the hill. The fort is approached by one entrance on the town side, which has four gates. Within the fort is the Mahārāwal's palace, an imposing pile crowned by a huge umbrella of metal mounted on a stone shaft, a solid emblem of dignity of which the Bhāti chiefs are justly proud; but the interior is ill-arranged and space is frittered away in numberless small apartments. The houses are all substantially built of stone and mortar and flat-roofed. Most of them have beautifully carved fronts of the

yellow limestone found locally, which is easily chiselled when first quarried, and becomes harder on exposure. The Jain temples in the fort are very fine, the carving in them being exquisite; some of them are said to be 1,400 years old. The town possesses a post office, a jail with accommodation for 88 prisoners (the daily average strength in 1904 being 54), an Anglo-vernacular school and a primary Hindī school attended by 160 boys, and a hospital with accommodation for 6 in-patients.

Jai Samand.—Lake in Udaipur State, Rājputāna. *See* DHEBAR LAKE.

Jaito.—Town in the Phūl *nizāmat* of Nābha State, Punjab, situated in 30° 26′ N. and 74° 56′ E., on the Ferozepore-Bhatinda branch of the North-Western Railway, 40 miles east of Ferozepore. Population (1901), 6,815. Jaito possesses a large grain market, and an important cattle fair is held here in the month of February. It has a police station, a dispensary, and a primary school.

Jājmau.—Former name of the CAWNPORE *tahsīl*, Cawnpore District, United Provinces.

Jājpur Subdivision.—North-western subdivision of Cuttack District, Bengal, lying between 20° 39′ and 21° 10′ N. and 85° 42′ and 86° 37′ E., with an area of 1,115 square miles. The population in 1901 was 560,402, compared with 525,910 in 1891. The west of the subdivision lies on the fringe of the Chotā Nāgpur plateau, and this portion is very sparsely populated; towards the east, which consists of a fertile highly cultivated plain, the density increases, the average for the whole subdivision being 503 persons per square mile. It contains one town, JĀJPUR (population, 12,111), its head-quarters; and 1,580 villages.

Jājpur Town.—Head-quarters of the subdivision of the same name in Cuttack District, Bengal, situated in 20° 51′ N. and 86° 20′ E., on the right bank of the Baitaranī river. Population (1901), 12,111. Under the early kings of the Kesari dynasty Jājpur was the capital of Orissa, and in the sixteenth century it was the scene of the struggle between the Musalmāns and Hindus, from which it emerged in ruins. It is still a resort for pilgrims, but has comparatively little trade. It contains many interesting buildings, among which the most striking are the temples of Birodā Devī, of the Boar incarnation of Vishnu, and the great sun pillar that stands a mile outside the town. This latter consists of a huge and beautifully proportioned column of stone raised on a solid pedestal; and if the temple was in proportion, it must have been of a remarkable size. All traces of it have, however, disappeared, and the column has escaped only owing to its great weight, which prevented its would-be destroyers from moving it. Besides these, some ancient heroic figures of gods and goddesses are standing or lying in the compound of the subdivisional office. They are considered to be fine

specimens of Hindu art, but all bear traces of Muhammadan vandalism in their mutilated features, from which the noses were cut by the renegade Kāla Pāhār. Interesting, too, are the grim features of the seven 'mothers of the earth' in a dark little gallery by the river bank, but there is little beauty in any of these early works. The Muhammadan mosque built by Nawāb Abu Nasīr in the seventeenth century is an elegant building, which has lately been restored by the Public Works department. Jājpur was constituted a municipality in 1869. The income during the decade ending 1901–2 averaged Rs. 5,800, and the expenditure Rs. 5,300. In 1903–4 the income was Rs. 7,600, mainly from a tax on persons (or property tax); and the expenditure was Rs. 6,700. The town contains the usual public offices; the sub-jail has accommodation for twelve prisoners.

Jājpur.—District and head-quarters thereof in Udaipur State, Rājputāna. *See* JAHĀZPUR.

Jakāsna.—Petty State in MAHĪ KĀNTHA, Bombay.

Jākhau.—Petty State in KĀTHIĀWĀR, Bombay.

Jākhau.—Seaport in the State of Cutch, Bombay, situated in 23° 14′ N. and 68° 45′ E., on the south-west coast, 60 miles south-west of Bhūj. Population (1901), 5,059. The town stands between 3 and 4 miles inland, in a plain bare of trees but yielding abundant crops. The landing-place is at Godia creek, 5 miles from the sea, dry at low water, but with a depth of from 8 to 12 feet at high tide. At springs, boats of from 20 to 25 tons burden can pass up. There is a stretch of backwater from the Indus to the Godia creek, known as Bagda, navigable by craft of 8 and 10 tons all the year round. Jakhau carries on a large trade with Bombay, exporting grain and importing piece-goods, groceries, timber, sugar, oil, and dates. The municipal income in 1903-4 was Rs. 800.

Jalālābād District.—A large district in Afghānistān. It was formerly a province, and contains the tracts known as Kāfiristān, Kunar, Laghmān, Tagao, Ningrahār, Safed Koh, and Jalālābād. The head-quarters are at JALĀLĀBĀD TOWN. The district is bounded on the north by Badakhshan; on the east by Chitrāl and territory within the sphere of British influence; on the south by Afrīdī Tīrāh; and on the west by the Kābul province. The whole country is intersected by vast mountain ranges, which include the eastern extremity of the Hindu Kush with its numerous spurs and branches. The Safed Koh forms its southern boundary, separating the Jalālābād valley from Afrīdī Tīrāh. From its highest point, Sikarām (15,600 feet), this range falls gently to the west and gradually subsides in long spurs, reaching to within a few miles of Kābul and barring the road from Kabul to Ghazni. The district is drained by the Kābul basin, which receives, besides numerous other streams, the waters of the Panjshīr, Tagao,

Alishang, Alingār, and Kunar. The valleys of the first three lead into Kāfiristān; and the Kunar affords a means of communication with Chitrāl, Badakhshān, and the Pāmirs.

The district is inhabited by various races. The principal Afghān tribes are the Shinwāris, Khugiānis, Mohmands, and Ghilzais. Tājiks are fairly numerous, and there are small communities of Arabs and Hindus. Kunar contains people of the same race as the Chitrālis; in Tagao and Laghmān Sāfis are found in considerable numbers, especially in the former valley. The Sāfis speak a language of Indo-Aryan origin, resembling that of the inhabitants of KĀFIRISTĀN. There can be little doubt that the Sāfis were originally Kāfirs, who have been converted to Islām during the last few centuries. Ningrahār, or Nangrahār, the old name of the Jalālābād valley, is now applied to the southern portion. Bellew (*Races of Afghanistan*) writes that it is supposed by some to signify 'the nine rivers,' though the valley does not contain so many, and is explained to be a combination of the Persian *nuh*, 'nine,' and the Arabic *nahar*, 'river.' It is, however, as he points out, a word of much more ancient date and purely of Sanskrit derivation—*nawa vihārā*, 'the nine monasteries,' the valley having been a flourishing seat of Buddhism so late as the fifth century.

The climate of the plains of Jalālābād bears a general resemblance to that of Peshāwar. For two months in the hot season the heat is excessive. Rain usually falls in the months of December, January, and February; snow rarely, if ever, on the plains east of Gandamak. During the winter, from November to May, the wind blows steadily from the west, often bringing violent dust-storms. The wide stony waste of Batikot is dreaded for a pestilential simoom which blows over it in the hot season.

From an archaeological point of view few tracts are more interesting than Jalālabād. Although it has been occupied by Muhammadans for a thousand years, there still remain abundant traces of an ancient Hindu population. The localities where these remains are found in great profusion are at Darunta, at the meeting of the Siāh Koh range with the Kābul river; in the plain east of Jalālābād town; and in the vicinity of the small village of Hadda, about six miles south of Jalālābād. Three kinds of buildings are met with: namely, topes, tumuli, and caves, all undoubtedly Buddhist. In some of the topes ancient gold coins of the Eastern Roman Empire—*solidi* of Theodosius, Marcian, and Leo—have been discovered. Sassanian and old Hindu coins have also been found there, but no Graeco-Bactrian.

Jalālābād Town (1).—The only town in the Jalālabād district of Afghānistān, situated in 34° 26′ N. and 70° 27′ E., 79 miles from Peshāwar, and 101 from Kābul; 1,950 feet above the sea. The town,

which was at one time the favourite winter residence of the Amīrs, is an irregular quadrilateral, surrounded by walls extending for 2,100 yards. It is a squalid place, presenting few features of interest. It is divided into four irregular parts by streets which, starting from the various gates, meet in the centre. The permanent population is about 2,000; but this number increases tenfold in the winter, when the tribes from the neighbouring hills flock into it on account of its warmer climate. It is advantageously situated for trade, being on the main route between Peshāwar and Kābul, while roads lead from it to Ghazni, and, through Laghmān, to Badakhshān and Yārkand. The trade consists chiefly in the export of fruit and timber to Peshāwar. Two hundred yards from the west gate of the city is a palace belonging to the Amīr, but now rarely occupied by him. It is a striking building, constructed about 1892, in a garden 200 yards square, surrounded by high walls. The palace measures about 135 by 114 feet, has large underground rooms for use in the hot season, and a wide veranda all round, from which a charming view is obtained of the valley and adjacent hills. The climate of Jalālābād is similar to that of Peshāwar; the heat for two months in the summer is excessive and the autumn is the unhealthy season.

Jalālābād was founded in 1570 by the emperor Akbar. The modern history of the town dates from 1834, when it was seized and sacked by Amīr Dost Muhammad. It was occupied by the British during the Afghān War of 1839–43, when Sir Robert Sale held it, in the face of extraordinary difficulties, against the Afghān leader, Muhammad Akbar Khān, from November, 1841, to April, 1842. The British forces had practically no stock of provisions, and the small garrison had to make constant sallies. Hardly had the town been made defensible, in February, 1842, when an earthquake rendered the previous work ineffectual. The 'illustrious garrison,' however, held out, and in April an attack was made on the enemy which had the effect of raising the siege. A week later General Pollock's force gave permanent relief. Jalālābād was again occupied by British troops during the Afghān War of 1879–80. The British built a fort, called Fort Sale, about a mile east of the town. In this were hospitals and quarters, and these buildings, which are still kept in repair, are now occupied by Afghan troops.

Jalālābād Tahsīl.—South-western *tahsīl* of Shāhjahānpur District, United Provinces, conterminous with the *pargana* of the same name lying between 27° 35′ and 27° 53′ N. and 79° 20′ and 79° 44′ E., with an area of 324 square miles. Population increased from 158,798 in 1891 to 175,674 in 1901, the rate of increase being the highest in the District. There are 360 villages and one town, JALALĀBĀD (population, 7,017), the *tahsīl* head-quarters. The demand for land revenue in

1903–4 was Rs. 2,17,000, and for cesses Rs. 35,000. The density of population, 542 persons per square mile, is about the District average. Along the south-western border flows the Ganges, and the Rāmgangā crosses the centre of the *tahsīl*. The Ganges *khādar* is very poor. Beyond the *khādar* a hard clay plain, called *bankati*, extends up to the Rāmgangā alluvial tract. The *bankatī* area requires constant irrigation, which is supplied by damming numerous small streams. Near the Rāmgangā the soil is usually richer, but deposits of sand are occasionally left by the river floods. East of the Rāmgangā lies a small tract of light sandy soil, requiring irrigation. In 1903–4 the area under cultivation was 225 square miles, of which 65 were irrigated. Rivers supply more than half the irrigated area.

Jalālābād Town (2).—Head-quarters of the *tahsīl* of the same name in Shāhjahānpur District, United Provinces, situated in 27° 43′ N. and 79° 40′ E., at the junction of the roads from Bareilly and Shāhjahānpur to Farrukhābād. Population (1901), 7,017. Jalālābād is an old Pathān town, said to have been founded by Jalāl-ud-dīn Fīroz Shāh. Its importance has decreased owing to its distance from the railway. The houses are chiefly built of mud, and none of the mosques and temples is of special interest. The Government offices stand on the site of an old fort, and the town also contains a dispensary and a branch of the American Methodist Mission. The town is administered under Act XX of 1856, with an income of about Rs. 2,500. Trade is only local. The *tahsīlī* school has about 211 pupils.

Jalālābād Town (3).—Town in the Kairāna *tahsīl* of Muzaffarnagar District, United Provinces, situated in 29° 37′ N. and 77° 27′ E., 21 miles from Muzaffarnagar town. Population (1901), 6,822. It is said to have been founded by a Pathān named Jalāl Khān in the reign of Aurangzeb. A mile away lie the ruins of the celebrated fort Ghausgarh, built by the Rohilla leader, Najīb Khān, with a beautiful mosque which was built by his son, Zābita Khān. Jalālābād was often sacked by the Marāthās during the rule of Zābita Khān, and a Marāthā still holds a small grant close by. During the Mutiny the Pathāns of this place remained quiet, and one of their leaders did good service as *tahsīldār* of Thāna Bhawan after its capture. The town is administered under Act XX of 1856, with an income of about Rs. 2,300. There are two schools, with more than 100 pupils.

Jalālī.—Town in the District and *tahsīl* of Alīgarh, United Provinces, situated in 27° 52′ N. and 78° 16′ E., 11 miles south-east of Alīgarh town. Population (1901), 8,830. The chief inhabitants are the Saiyids, Shiahs by sect. They are descendants of one Kamāl-ud-dīn, who settled here about A.D. 1295. This Saiyid family subsequently expelled the old Pathān landholders, and obtained full proprietary rights in the town, which they still possess. The family has supplied

many useful subordinate officers to the British Government. The town contains a considerable number of *imāmbāras*, one of which is a handsome building. Jalālī is administered under Act XX of 1856, with an income of about Rs. 1,700. There is a primary school with 60 pupils, and the Muhammadans maintain several schools for reading the Korān. The place has little trade.

Jalālpur Tāluka.—Central *tāluka* of Surat District, Bombay, lying between 20° 45′ and 21° 0′ N. and 72° 47′ and 73° 8′ E., with an area of 188 square miles. The population in 1901 was 81,182, compared with 78,649 in 1891, the average density being 432 persons per square mile. The *tāluka* contains 91 villages, Jalālpur being the head-quarters. Land revenue and cesses in 1903–4 amounted to over 3·6 lakhs. Jalālpur is a level plain of deep alluvial soil, sloping towards the sea, where it ends in a salt marsh. Along the coast-line low sandhills appear at intervals. With the exception of the salt lands near the coast, the country is rich, highly cultivated, and well supplied with water, groves of fruit trees, and valuable timber. The villages are large and prosperous. Besides the tract on the coast, there are extensive salt marshes along the banks of the Pūrna and Ambika rivers. The reclaimed land has been made to yield a small return of rice. *Jowār*, *bājra*, and rice are the staple crops. Miscellaneous crops are pulses, gram, oilseeds, sugar-cane, and plantains. The climate is mild and healthy throughout the year.

Jalālpur Town (1).—Town in the District and *tahsīl* of Gujrāt, Punjab, situated in 32° 38′ N. and 74° 12′ E., 8 miles north-east of Gujrāt town. Population (1901), 10,640. Lying at the junction of the roads connecting Siālkot, Jhelum, Jammu, and Gujrāt, it is a mart of some importance; but its only local industry is the manufacture of shawls, carried on by a colony of Kashmīris who settled here after the famine of 1833. The municipality was created in 1867. The income during the ten years ending 1902–3 averaged Rs. 9,300, and the expenditure Rs. 8,900. In 1903–4 the income was Rs. 8,900, chiefly derived from octroi; and the expenditure was Rs. 10,700. The town possesses two Anglo-vernacular middle schools, and two dispensaries, one maintained by Government and the other by the Scottish Mission.

Jalālpur Village (2).—Ancient site in the Pind Dādan Khān *tahsīl* of Jhelum District, Punjab, situated in 32° 39′ N. and 73° 28′ E., on the right bank of the Jhelum river. Population (1901), 3,161. The village was identified by Sir Alexander Cunningham with the site of the ancient Bucephala, built by Alexander the Great in memory of his famous charger, which was killed in the battle with Porus at the crossing of the Jhelum; but doubts have been cast on the identification. Remains of ancient walls still crown the summit of the hills, which rise to a height of 1,000 feet above the village. Coins found among the

ruins date back to the period of the Graeco-Bactrian kings. Even in the time of Akbar, the town covered a site four times as large as that which it now occupies; but since the foundation of Pind Dādan Khān, and the shifting of the river channel 2 miles eastward, it has undergone a constant decay. Jalālpur is now nothing more than a small agricultural village, of no importance apart from the interest attaching to its antiquarian remains.

Jalālpur Town (3) (or Jalālpur Pīrwāla).—Town in the Shujābād *tahsīl* of Multān District, Punjab, situated in 29° 32′ N. and 71° 14′ E., on the banks of an old bed of the Beās called the Bhatāri. Population (1901), 5,149. It is called Pīrwāla after Saiyid Sultān Ahmad Kattāl, generally known as Pīr Kattāl, a Muhammadan saint, pilgrim, and missionary, and descendant of Saiyid Jalāl of Uch, who died here in 1631. A fine domed building, covered with blue glazed tiles, built in 1745, marks his tomb; and at the large fairs held here on every Friday in the month of Chait (March–April), evil spirits are exorcised from Muhammadan women by day and from Hindu women by night. The municipality was created in 1873. The income during the ten years ending 1902–3 averaged Rs. 5,000, and the expenditure Rs. 5,200. The income in 1903–4 was Rs. 4,600, chiefly from octroi; and the expenditure was Rs. 5,200. The town has a dispensary, and a vernacular middle school maintained by the municipality. Its trade has greatly decayed since the opening of the railway.

Jalālpur Town (4).—Town in the Akbarpur *tahsīl* of Fyzābād District, United Provinces, situated in 26° 19′ N. and 82′ 45′ E. Population (1901), 7,265. The town is picturesquely placed on the high bank of the Tons (Eastern), which winds in a deep channel through a fertile and well-wooded landscape. An *imāmbāra* outside the town was built in the eighteenth century at a cost of Rs. 4,000 by contribution from the weavers, each man contributing a quarter of a pice for each piece of cloth woven by him. Jalālpur is administered under Act XX of 1856, with an income of about Rs. 1,500. There is still a flourishing manufacture of cotton cloth, but many of the Julāhās (Muhammadan weavers) go to Bombay, Calcutta, and Cawnpore to work in the mills. A school has 235 pupils.

Jālandhar.—Division, District, *tahsīl*, and town in the Punjab. *See* JULLUNDUR.

Jalangī (or Khariā).—One of the three rivers of Nadiā District, Bengal, known as the NADIĀ RIVERS, the other two being the BHĀGĪRATHI and the MĀTĀBHĀNGA. The Jalangī leaves the GANGES, at the point where it enters Nadiā District in 24° 11′ N. and 88° 43′ E., and meanders along the north-west of the District for 50 miles, separating it from Murshidābād. It then flows to the south past Krishnagar, the chief town of the District, whence it turns westward,

and after a total course of 121 miles meets the Bhāgīrathi at Nadiā town in 23° 25′ N. and 88° 24′ E., the united stream taking the name of the HOOGHLY. The Jalangī, which was at one time the principal outlet for the Ganges, has, like the other head-waters of the Hooghly, a tendency to silt up, and 36 miles of the upper Jalangī have in fact almost entirely closed. It now derives its main water-supply from the Ganges through the old channel of the upper BHAIRAB, and with it forms part of the NADIĀ RIVERS system. Considerable difficulties have been experienced in keeping the channel open for navigation. The Jalangī is navigable during the rainy season by country boats of 4 tons burden, but in the hot season it is little more than a string of marshes connected by shoals and is fordable at many points. Navigation is always a matter of great difficulty at this time, and is in most years impossible. The principal marts on its banks are KRISHNAGAR, Karīmpur, Chāpra, and Swarūpganj; their trade is chiefly in grain, oilseeds, and molasses.

Jālāpahār.—Hill in the head-quarters subdivision of Darjeeling District, Bengal, situated in 27° 1′ N. and 88° 16′ E., above the station of Darjeeling. Jālāpahār, which forms part of Darjeeling cantonment, is a convalescent dépôt garrisoned by a company of the British infantry regiment quartered at LEBONG. Barracks were built at Jālāpahār as far back as 1848, but these have been enlarged and now provide accommodation for 400 men. The parade ground is 7,520 feet above sea-level.

Jalārpet.—Village in the Tiruppattūr *tāluk* of Salem District, Madras, situated in 12° 35′ N. and 78° 34′ E. Population (1901), 2,051. It is of importance owing to its railway station, which is the junction of the south-west line of the Madras Railway with the Bangalore branch. Of late years it has also been the station at which passengers proceeding towards Madras have been examined to make sure that they are free from plague. Distance from Madras 132 miles, from Bangalore 87 miles.

Jālaun District.—District in the Allahābād Division of the United Provinces, lying between 25° 46′ and 26° 27′ N. and 78° 56′ and 79° 52′ E., with an area of 1,480 square miles. Jālaun is the most northern of the Districts of British Bundelkhand, and is roughly triangular in shape, the boundaries being chiefly formed by the Jumna and its tributaries, the Betwā and Pahūj. On the north and north-east the Jumna divides it from Etāwah and Cawnpore; on the south-east its greatly indented boundary marches with that of the Baonī State; on the south the Betwā separates Jālaun from Jhānsi and Hamīrpur, and the Samthar State forms part of the boundary; on the west the Pahūj generally runs between Jālaun and the State of Gwalior, except where a portion of the Datiā State enters the former like a wedge.

Jālaun lies entirely within the level plain of Bundelkhand. Its highest portions are on the borders, especially near the Jumna, while the lowlands occupy the central part and are chiefly drained by two separate channels which unite as they approach the Jumna, the combined stream being called the Non. An important feature of these channels, and still more so of the larger rivers, is the intricate reticulation of deep ravines which fringe them, including about one-fifth of the total area of the District. The course of the Jumna is from north-west to south-east, while the Pahūj runs from south to north and the Betwā from west to east. The junction of the Pahūj with the Jumna is on the northern frontier.

Physical aspects.

Jālaun consists almost entirely of alluvium. *Kankar* or nodular limestone is the chief mineral found; but stone and gravel are obtained near Saidnagar.

The District presents no peculiarities from a botanical point of view. It is very sparsely wooded, especially in the black-soil tracts in the south. *Babūl* (*Acacia arabica*) is found everywhere in waste land, while *khair* (*Acacia Catechu*) grows in the ravines. Plantations of *babūl* under the management of the Forest department are being undertaken near Kālpī to supply the Cawnpore tanneries. *Kāns* grass (*Saccharum spontaneum*) is a great pest, recurring in cycles.

Tigers are hardly ever met with, but wild hog, antelope, leopards, and hyenas are numerous. The poorer classes residing on the banks of the three principal rivers use fish as an article of diet to a considerable extent.

The climate is hot and dry, but not unhealthy. The average monthly temperature ranges from about 65° in January to 96·5° in May. The annual rainfall over the whole District averages 32 inches, and there is little difference between the amounts received in different portions. Great variations occur, however, from year to year. In 1868–9 the fall was only 13 inches, while it was as much as 51 inches in 1894–5.

No details are known of the ancient history of this tract, which was not a political entity till the eighteenth century. The town of KĀLPĪ was conquered by Kutb-ud-dīn in 1196. Owing to its importance as guarding a main crossing of the Jumna, it was held by a strong garrison and became a starting-point for expeditions into Central India and the Deccan, and later a fortress on the route from Agra to Bengal. In the long struggle between the kings of Delhi and Jaunpur during the first eighty years of the fifteenth century Kālpī was the scene of fierce battles and sieges. The Hindu confederacy against Bābar met here, and advanced to experience a crushing defeat near Fatehpur Sīkri in Agra District. During the next thirty years Kālpī was taken and retaken several times, and under

History.

Akbar it became the head-quarters of a *sarkār*. The Bundelās had for a short time held Kālpī in the fourteenth century, and towards the end of Akbar's reign assumed a threatening attitude. Bīr Singh Deo, Rājā of Orchhā, occupied the greater part of Jālaun District and was confirmed in his possessions by Jahāngīr. He revolted when Shāh Jahān came to the throne, and after a long struggle lost all his influence in this tract. Another branch of the Bundelās which had gradually acquired power in Hamīrpur District now became prominent, and Chhatarsāl, its great leader, included Jālaun in his dominions. Early in the eighteenth century, however, when attacked by the governor of Allahābād, he called in the Marāthās to aid him. At his death about 1734 he bequeathed one-third of his possessions, including this District, to his allies. Under Marāthā rule the country was a prey to constant anarchy and intestine strife. In the wars which took place at the close of the eighteenth century Kālpī was taken by the British in 1798, but subsequently abandoned. Part of the District was ceded by the Peshwā in 1803 for the maintenance of troops, by a treaty modifying the terms of the Treaty of Bassein a year earlier; but the fort of Kālpī was held by Gobind Rao on behalf of Shamsher Bahādur (*see* BĀNDĀ DISTRICT) and was taken after a short siege. A tract near the Jumna was assigned to Himmat Bahādur, who had aided the British, and in 1806 Gobind Rao submitted and was restored to his possessions. Portions of the present District in the Kālpī and Kūnch *tahsīls* were included in the British District of Bundelkhand. The Jālaun estate was seriously misgoverned, and in 1838 the British Government assumed its management. It lapsed in 1840, and during the next few years additions were made by conquest, by treaties with the Rājās of Jhānsi and Gwalior, and by lapse. In 1853 the southern portion of the present Hamīrpur District, which had been administered by the Deputy-Superintendent of Jālaun, was transferred to Hamīrpur, and Kūnch and Kālpī were attached to Jālaun. In 1854 and 1856 further transfers were made to Jhānsi District, and Jālaun assumed its present form subject to a further transfer to Sindhia in 1861.

News of the rising at Cawnpore reached Orai early in June, and shortly afterwards intelligence arrived that the Europeans at Jhānsi had been massacred. Thereupon the men of the 53rd Native Infantry deserted; and on June 15 the Jhānsi mutineers reached the District and murdered all the Europeans on whom they could lay their hands. Meanwhile Kesho Rao, chief of Gursarai, assumed supreme authority. He kept a few European officers as prisoners for some months, until after the defeat of the infamous Nāna Sāhib and his flight from Cawnpore; but those events induced him to change his tone and to treat with Colonel Neill for their restoration. After sending them in safety to Cawnpore, the chief established himself for a time at Jālaun; but

upon the arrival of Tāntiā Topī in October the usual anarchic quarrels arose. Kesho Rao was deposed; his son was seized by the rebels; and the mutineers of Jālaun, joining those of Gwalior, set out for Cawnpore. Meanwhile the populace everywhere revelled in the licence of plunder and murder which the Mutiny had spread through Bundelkhand. In May, 1858, after the fall of Jhānsi, Sir Hugh Rose's force entered the District and routed the rebels at Kūnch. There he left some troops of the Gursarai chief, whose allegiance had returned with the advent of the British forces. A Deputy-Commissioner was put in charge of the District at Kūnch, and Sir Hugh Rose advanced to attack the strong rebel position at Kālpī. On May 23 he drove them from that post and shortly afterwards marched in pursuit towards Gwalior. Unfortunately he was unable to leave any troops in garrison, except a small body to guard the passage at Kālpī; and accordingly on his withdrawal the western portion of the District relapsed once more into anarchy. Plundering went on as before; and in July and August the rebels again attacked and pillaged Kūnch and Jālaun. The latter town was immediately recovered by a detachment from the garrison at Kālpī: but it was not till September that the guerrilla leaders were defeated, and some further time elapsed before the work of re-organization could be effected.

Jālaun was treated as 'non-regulation' up to 1891, when it was made subject to the ordinary laws in force in the United Provinces, some of which had already been introduced.

The District is not rich in antiquities. A few carved pillars and stones which may possibly be of the Chandel period have been found at Orai. The great battle in which Prithwī Rāj of Delhi defeated Parmāl, the last great Chandel ruler of BUNDELKHAND, is said to have taken place at a village called Akorī in the Orai *tahsīl*. KĀLPĪ, the most celebrated historical place in the District, contains a number of Muhammadan tombs.

Population.

There are 6 towns and 837 villages in Jālaun. Population shows considerable fluctuations, owing to the vicissitudes of season to which all Bundelkhand is liable. The numbers at the last four enumerations were as follows: (1872) 404,447, (1881) 418,142, (1891) 399,361, and (1901) 399,726. There are four *tahsīls*—ORAI, KĀLPĪ, JĀLAUN, and KŪNCH—each named from its head-quarters. The principal towns are the municipalities of KŪNCH, KĀLPĪ, and ORAI, the District head-quarters. The table on the next page gives the chief statistics of population in 1901.

Hindus form nearly 94 per cent. of the total population, and Musalmāns only 6 per cent. The density of population is considerably higher than in the other Bundelkhand Districts, owing to the absence of the rocky hills and jungle wastes which characterize the latter.

Jālaun was the only Bundelkhand District in which the population did not decrease between 1891 and 1901, and this result may safely be ascribed to the Betwā Canal. Practically the whole population speaks Western Hindī, the prevailing dialect being Bundelī.

Tahsīl.	Area in square miles.	Number of Towns.	Number of Villages.	Population.	Population per square mile.	Percentage of variation in population between 1891 and 1901.	Number of persons able to read and write.
Orai	311	2	105	59,065	190	− 12·7	3,445
Kālpī	407	1	154	75,692	186	− 3·9	2,674
Jālaun	424	2	381	160,381	378	+ 9·0	6,959
Kūnch	338	1	197	104,588	309	+ 1·7	4,451
District total	1,480	6	837	399,726	270	+ 0·8	17,529

Chamārs (leather-workers and cultivators), 68,000, are the most numerous Hindu caste. Other large castes are Brāhmans, 50,000; Rājputs, 35,000; Kāchhīs (cultivators), 27,000; Korīs (weavers), 20,000, and Ahīrs (graziers), 19,000. The Basors (5,000) and Khangārs (6,000) are menial classes peculiar to this part of Bundelkhand. Among Musalmāns, there are 11,000 Shaikhs and 6,000 Pathāns, but many of these are descended from converted Hindus. Agriculture supports 61 per cent. of the total population, and general labour 10 per cent. Rājputs, Kurmīs, and Brāhmans are the chief land-holders.

There were 59 native Christians in 1901, but no missions have permanent stations in the District.

Agriculture.

The southern portion of Jālaun forms a rich basin of the black soils of Bundelkhand (*mār* and *kābar*), in which excellent wheat can be grown in favourable seasons without irrigation. Unfortunately it becomes overgrown, when cultivation is relaxed, by the weed called *kāns*, which spreads rapidly and finally stops the plough. Towards the north the soil is brown or yellow, called *parwā*; this resembles the loam of the Doāb and requires irrigation. Near the ravines which border the rivers, the soil is denuded of its more valuable constituents and becomes exceedingly poor; but there is valuable grazing near the Jumna and Betwā, and *ghī* is made by the Ahīrs who graze large herds of cattle there. Field embankments are also made, which prevent erosion and, by holding up water, stop the growth of *kāns* and retain moisture.

The ordinary tenures of the United Provinces are found, *zamīndāri* and *pattīdāri mahāls* being the commonest. A few estates are held on the *ubārī* tenure, which implies a reduction of the full revenue demand on varying conditions (*see* JHĀNSI DISTRICT). The main agricultural statistics for 1899-1901[1] are given on the next page, in square miles.

[1] Later figures are not available owing to settlement operations.

Tahsīl.	Total.	Cultivated.	Irrigated.	Cultivable waste.
Orai	311	134	2	80
Kālpī	407	158	9	114
Jālaun	424	275	25	73
Kūnch	338	234	11	41
Total	1,480	801	47	308

The principal food-crops are gram, *jowār*, and wheat, which covered 333, 123, and 103 square miles respectively. *Arhar* (81 square miles), *bājra* (69), and barley (15) are less important. Oilseeds (48 square miles) and cotton (59) are the chief non-food crops; but hemp (*san*) and poppy are also grown to a small extent.

Jālaun, like the rest of Bundelkhand, is liable to great fluctuations in agricultural prosperity. If the spring harvest is injured, whether by blight or by excess or deficiency of rain, cultivation relaxes, or wheat is replaced by inferior staples, and *kāns* spreads rapidly, throwing land out of cultivation. No material improvements have been made in agricultural methods, though many years ago it was attempted to introduce American varieties of cotton near Kālpī. Endeavours are now being made to encourage rice cultivation, and an experimental farm is under consideration. Part of the District has been rendered more secure by canal-irrigation, which will be referred to later. Advances under the Land Improvement and Agriculturists' Loans Acts are freely taken, especially in bad years. A total of 5 lakhs was advanced during the ten years ending 1900, including 3 lakhs in the two famine years 1895–7; and Rs. 16,000 was lent between 1900 and 1904.

The cattle of Jālaun are inferior to those found south of the Betwā. Attempts have been made to introduce better strains, but hitherto without success. No horses are bred, and the ponies, sheep, and goats are all of an ordinary type.

Up to 1886 the District had no sources of irrigation except wells; and owing to the peculiarities of the black soils, *mār* and *kābar*, and the great depth of the spring-level the area irrigated was small. The opening of the Betwā Canal has led to a considerable increase in the irrigated area. This work enters the District in the south-west and has two branches, which supply almost every part of the District. Though the cultivators did not at first take water readily, the famine of 1896–7 opened their eyes to the value of the canal. In that year the area irrigated, which had been only 12 square miles in 1894–5, rose to 128 square miles. Water is now freely taken for *parwa*, or loam; and the area of black soil irrigated, especially *kābar*, is increasing steadily. The area irrigated in 1899–1901 from canals was 38, and from wells 9 square miles. At present the irrigation is almost entirely confined to

the spring crops, as the supply is exhausted by the beginning of the hot season; but a second reservoir is being constructed to increase the supply.

Kankar or calcareous limestone and saltpetre are the only mineral products.

Trade and communications.

Jālaun was formerly noted for the production of cotton cloth; but the competition of machine-made cloth from Cawnpore has materially affected the industry, and the cultivation of *āl* (*Morinda citrifolia*), from which a valuable red dye was made, has ceased since the introduction of aniline colours. Cotton-dyeing and printing still survive on a small scale at Saidnagar and Kotra. There are two small cotton-gins at Kālpī and a larger one at Ait, while another has recently been completed at Kūnch.

The principal exports are gram, oilseeds, cotton, and *ghī*. The bark of the *babūl* is now being sent in increasing quantities to Cawnpore for use in tanning, and a plantation is being made near Kālpī. The gram is sent to Southern and Western India, oilseeds to Bombay, cotton to Cawnpore and Bombay, and *ghī* to Bengal. Kūnch, Kālpī, Jālaun, Rāmpura, and Mādhogarh are the chief trade centres.

The south of the District is crossed by the Indian Midland section of the Great Indian Peninsula Railway from Jhānsi to Cawnpore, and a short branch connects Ait with Kūnch. There are 669 miles of roads, of which 130 are metalled. The latter are in charge of the Public Works department, but the cost of all but 45 miles of metalled roads is met from Local funds. Avenues of trees are maintained on 109 miles. The main lines are the roads from Cawnpore and Saugor, and from Orai to Kūnch, Jālaun, and Mādhogarh.

Famine.

Drought and blight are the two great scourges of Jālaun, and famine and scarcity occurred in 1783, in 1833, in 1837, and in 1848. The rains of 1868 failed and the autumn harvest was only about one-third of the normal, while the following spring harvest, which benefited by an opportune fall in September, 1868, gave rather more than half an average crop. There was great distress, especially in the remote southern villages, until the monsoon of 1869, and relief was given and works were opened. A still worse calamity was experienced in the years 1895–7. Previous seasons had injured the crops and *kāns* had spread considerably. The rains of 1895 ceased prematurely, and relief was necessary early in 1896. By May the numbers on relief rose above 40,000, but the approach of the rains sent the people back to their villages. The monsoon of 1896, however, was even weaker than that of the previous year, and relief operations were again required. By April, 1897, there were 127,000 persons in receipt of relief, and before the next harvest nearly 35 per cent. of the

total population had been relieved. Between October, 1896, and the same month in 1897 nearly 12 lakhs was spent by Government.

Administration. The Collector is assisted by three Deputy-Collectors recruited in India, and a *tahsīldār* is stationed at the head-quarters of each *tahsīl*.

There is one regular Munsif. Jalaun lies in the jurisdiction of the Civil Judge and Sub-Judge of Jhānsi, and also in the Jhānsi Sessions division. A Special Judge is at present carrying out inquiries under the Bundelkhand Encumbered Estates Act. Crime is on the whole light, but outbreaks of dacoities occur not infrequently, and the difficulty in breaking up gangs is increased by the proximity of Native States.

The District includes three large estates, Rāmpura, Jagamanpur, and Gopālpura, for which no detailed statistics are available, the total area of the three being about 85 square miles. A fixed revenue of Rs. 4,500 is paid for Jagamanpur, and the other two are held revenue free. For the first time since its existence in its present form, the settlement of the whole of Jālaun District is now being revised simultaneously. Portions of the Kūnch and Kālpī *tahsīls* were first settled as part of the Bundelkhand District and afterwards of HAMĪRPUR, the first regular settlement being made in 1840-1. This was revised in the usual manner in 1872, the term being fixed for thirty years. The remainder of the District was assessed summarily for short terms from 1839 to 1863. The first regular settlement, which should have commenced earlier, but was postponed by the Mutiny, was carried out between 1860 and 1863, and was confirmed for a period of twenty years. It was revised between 1885 and 1887, and the operations are noteworthy as being the first in the United Provinces in which the rules directed that rent-rolls should form the chief basis of assessment. At that time the revenue of the portions settled in 1872 was 2·9 lakhs. The revenue on the rest of the District was enhanced from 6·3 to 7·5 lakhs, the demand falling at 47 per cent. of the corrected rental. A series of bad seasons followed, and in 1893 reductions were made. The famine of 1895-7 necessitated further reductions of revenue, and in 1903-4 the demand stood at 9·8 lakhs. The whole District has now been brought under the special system of settlement in force in Bundelkhand, by which revenue is liable to revision every five years.

Collections on account of land revenue and total revenue have been, in thousands of rupees:—

	1880-1.	1890-1.	1900-1.	1903-4.
Land revenue .	9,10	10,35	9,39	8,02
Total revenue .	11,81	13,58	12,28	9,01

There are three municipalities, and two towns are administered under Act XX of 1856. Beyond the limits of these, local affairs are managed by the District board, which had an income in 1903–4 of Rs. 87,000, half of which was derived from rates. The expenditure was Rs. 88,000, including Rs. 50,000 spent on roads and buildings.

The District Superintendent of police has a force of 3 inspectors, 83 subordinate officers, and 360 constables, distributed in 17 police stations, besides 100 municipal and town police, and 1,200 rural and road police. A special force is maintained along the frontier of the Native States as a guard against dacoits. The District jail contained a daily average of 157 prisoners in 1903.

Jālaun takes a high place as regards the literacy of its inhabitants, of whom 4·4 (8·4 males and 0·1 females) could read and write in 1901. The total number of public schools rose from 102 with 2,530 pupils in 1880–1 to 112 with 3,944 pupils in 1900–1. In 1903–4 there were 140 such institutions with 5,184 pupils, including 271 girls, besides 58 private schools with 890 pupils. The education imparted is almost entirely primary, and only six schools were classed as secondary. No schools are managed by Government, but 92 are managed by the District and municipal boards. Out of a total expenditure on education of Rs. 26,000, Local funds provided Rs. 22,000 and fees Rs. 4,000.

There are 7 hospitals and dispensaries, with accommodation for 73 in-patients. About 55,000 cases were treated in 1903, including 895 in-patients, and 2,600 operations were performed. The total expenditure was Rs. 13,000, chiefly met from Local funds.

In 1903–4, 15,000 persons were successfully vaccinated, representing a proportion of 37 per 1,000 of population. Vaccination is compulsory only in the municipalities.

[*District Gazetteer*, 1874 (under revision); *Settlement Reports* by P. J. White, *Kūnch*, 1874, *Kālpi*, 1875; *remaining portion of District*, 1889.]

Jālaun Tahsīl.—Northern *tahsīl* of Jālaun District, United Provinces, comprising the *pargana* of Jālaun and part of Mādhogarh, and lying between 26° and 26° 27′ N. and 79° 3′ and 79° 31′ E., with an area of 424 square miles. Population increased from 147,090 in 1891 to 160,381 in 1901, the rate of increase being the highest in the District. There are 381 villages and two towns, including Jalaun (population, 8,573), the *tahsīl* head-quarters. The demand for land revenue in 1903–4 was Rs. 3,16,000, and for cesses Rs. 51,000. The density of population, 378 persons per square mile, is the highest in the District. The *tahsīl* is bordered on the west by the Pahūj and on the north by the Jumna, both of these rivers having a fringe of ravines. In the south and east the rich black soil called *mār* is found;

but this tract has suffered recently from bad seasons. North of the *mār* is a tract of *kābar*, or lighter-coloured soil, which largely depends on rain at particular seasons for its cultivation. The north, west, and north-east of the *tahsīl* consists of a loam tract, which is served by the Kuthaund branch of the Betwā Canal, and is one of the most stable portions of this very precarious District. In 1900–1 the area under cultivation was 275 square miles, of which 25 were irrigated.

Jālaun Town.—Head-quarters of the *tahsīl* of the same name in Jālaun District, United Provinces, situated in 26° 8′ N. and 79° 21′ E., on a metalled road 13 miles from Orai, the District head-quarters. Population (1901), 8,573. During the eighteenth century Jālaun was the capital of a Marāthā State, and nearly all the respectable inhabitants are still Marāthā Brāhmans, many of whom enjoy pensions and rent-free grants. Besides the *tahsīlī* offices, the town contains a dispensary and a *tahsīlī* school with 144 pupils. It is administered under Act XX of 1856, with an income of about Rs. 1,300. Trade is small, but increasing. A fine market was built in 1881, and a number of Mārwārī bankers are settled here.

Jalesar Tahsīl.—South-western *tahsīl* of Etah District, United Provinces, conterminous with the *pargana* of the same name, lying between 27° 18′ and 27° 35′ N. and 78° 11′ and 78° 31′ E., with an area of 227 square miles. Population increased from 121,030 in 1891 to 133,399 in 1901. There are 156 villages and two towns, including JALESAR (population, 14,348), the *tahsīl* head-quarters. The demand for land revenue in 1903–4 was Rs. 2,76,000, and for cesses Rs. 45,000; but under the new settlement these figures will be raised to Rs. 2,88,000 and Rs. 47,000. The density of population, 588 persons per square mile, is the highest in the District. The *tahsīl* forms an almost unbroken plain. The Rind or Arind touches the north-east corner; but the chief river is the Sengar, known in this part of its course also as the Isan. Irrigation is provided by means of the Etāwah branch of the Upper Ganges Canal. The *tahsīl* is generally fertile, but is crossed by a line of sandhills, and is interspersed with patches of barren soil or *ūsar* and marshes. The drainage has recently been improved. In 1898–9 the area under cultivation was 148 square miles, of which 87 were irrigated. The canal serves more than a third of the irrigated area, and wells supply most of the remainder. In dry seasons the Sengar or Isan is largely used as a source of irrigation.

Jalesar Town.—Head-quarters of the *tahsīl* of the same name in Etah District, United Provinces, situated in 27° 28′ N. and 78° 19′ E., on the road from Muttra to Etah town, 8½ miles from Jalesar Road station on the East Indian Railway. Population (1901), 14,348. The town consists of two parts, the fort and the lower town. The fort is said to have been erected by a Rānā of Mewār in the fifteenth century;

but nothing remains of the buildings except a mound on which the *tahsīlī*, *munsifī*, police station, and municipal hall now stand. The lower town is a collection of narrow streets and lanes, the drainage of which was very defective, but the municipality has completed an efficient drainage scheme, through the Canal department. The streets are well paved and there is a dispensary. Jalesar has been a municipality since 1866. During the ten years ending 1901 the income and expenditure averaged Rs. 10,000. In 1903–4 the income was Rs. 14,000, chiefly from octroi (Rs. 11,000); and the expenditure was Rs. 13,000. There is not much trade; but cotton cloth, glass bangles, and pewter ornaments are made, and the largest saltpetre factory in the District is situated here. The Rājā of Awa has opened a cotton-gin, which employed 125 hands in 1903. A *tahsīlī* school has about 130 pupils, and the municipality maintains two schools and aids six others with a total attendance of 331.

Jaleswar (or Jellasore).—Village in the head-quarters subdivision of Balasore District, Bengal, situated in 21° 49′ N. and 87° 13′ E., on the left bank of the Subarnarekhā, 12 miles from its mouth. It lies on the Calcutta high road, and is also a station (Jellasore) on the Bengal-Nāgpur Railway. It was formerly the capital of a Muhammadan *sarkār* comprising the present District of Midnapore. During the eighteenth century the East India Company had a factory here.

Jālgaon Tāluk.—*Tāluk* of Buldāna District, Berār, lying between 20° 65′ and 21° 13′ N. and 76° 23′ and 76° 48′ E., with an area of 410 square miles. The population fell from 97,798 in 1891 to 87,192 in 1901, the density in the latter year being 212 persons per square mile. The *tāluk* contains 155 villages and one town, Jālgaon (population, 8,487), the head-quarters. The demand for land revenue in 1903–4 was Rs. 3,54,000, and for cesses Rs. 28,000. Jālgaon, which is the smallest *tāluk* in Berār in respect of area and, except the Melghāt, of population also, lies entirely in the fertile valley of the Purna, which bounds it on the south. On the north it is bounded by the low hills of the western portion of the Gāwilgarh range. Until August, 1905, when it was transferred to Buldāna, the *tāluk* formed part of Akola District.

Jālgaon Town (1).—Head-quarters of the *tāluk* of the same name in Buldāna District, Berār, situated in 21° 3′ N and 76° 35′ E. Population (1901), 8,487. The town is sometimes called Jālgaon-Jāmod from a village near it, to distinguish it from Jālgaon in Khāndesh. It is mentioned in the *Ain-i Akbarī* as a *pargana* town in the *sarkār* of Narnāla. It contains five ginning factories and a cotton market.

Jālgaon Tāluka.—*Tāluka* of East Khāndesh District, Bombay, lying between 20° 47′ and 21° 11′ N. and 75° 24′ and 75° 45′ E., with an area of 319 square miles. There are two towns, Jālgaon

(population, 16,259), the head-quarters, and NASIRĀBĀD (12,176); and 89 villages. The population in 1901 was 85,151, compared with 83,982 in 1871. The density, 269 persons to the square mile, is much above the District average. The demand for land revenue in 1903–4 was 2·8 lakhs, and for cesses Rs. 18,000. Jālgaon is a rich black plain to the north, and hilly or undulating to the south. The climate is generally healthy.

Jālgaon Town (2).—Head-quarters of East Khāndesh District, Bombay, and of the *tāluka* of the same name, situated in 21° 1′ N. and 75° 35′ E., on the Great Indian Peninsula Railway, 261 miles north-east of Bombay. Population (1901), 16,259. Situated in the centre of a rich cotton-growing District, Jālgaon rose in the nineteenth century to the position of an important mercantile town. During the American Civil War (1862–5) it was the great cotton mart of Khāndesh. It suffered severely from the fall in value at the close of the war, but its trade has recovered. The chief articles of commerce are cotton, linseed, and sesamum. In 1903 there were 6 cotton-presses, 2 large cotton-ginning factories, and one cotton-spinning and weaving mill, all worked by steam. In the same year the number of looms was 425 and of spindles 20,948, while the out-turn amounted to 2 million pounds of yarn and 1½ million pounds of cloth. The town has been greatly improved. A new suburb, Pollen-peth, has been built, and a market-place laid out. The municipality has made a garden on the site of part of the old cotton market. One of the most striking of many handsome buildings in the new suburb is a three-storeyed dwelling built by the *pātel* or headman of Pātri. Water is carried through iron pipes from the Mehrun lake, 2 miles distant. A metalled road connects Jālgaon and Neri, 14 miles distant, 24 miles beyond which are the celebrated Ajanta caves. The municipality was created in 1864. The municipal income during the decade ending 1901 averaged Rs. 37,000. In 1903–4 the income was Rs. 41,000. The town contains a Subordinate Judge's court, a dispensary, and six schools, with 574 pupils, of which one, with 63 pupils, is for girls. A branch of the American Alliance Mission has recently been established here.

Jālia Amarājī.—Petty State in KĀTHIĀWĀR, Bombay.

Jālia Devānī.—Petty State in KĀTHIĀWĀR, Bombay.

Jālia Mānajī.—Petty State in KĀTHIĀWĀR, Bombay.

Jālna Hills.—Range of hills in Hyderābād State, running eastward from Daulatābād in Aurangābād District. Close to the border of Berār it is joined by a spur of hills from Jālna in the south, from which the range derives its name. After entering Berār it merges into the Sahyādriparvat or SĀTMĀLĀ range. The Jālna Hills are about 2,400 feet high, one of the peaks, Daulatābād, being 3,022 feet

above the level of the sea. The total length of the range is about 120 miles.

Jālna Tāluk.—Eastern *tāluk* of Aurangābād District, Hyderābād State, with an area of 801 square miles. Its population in 1901, including *jāgīrs*, was 113,400, compared with 129,832 in 1891, the decrease being due to the famines of 1897 and 1890–1900. The *tāluk* contains two towns, JĀLNA (population, 20,270), the head-quarters, and KĀDIRĀBĀD (11,159), a large commercial centre; and 219 villages, of which 52 are *jāgīr*. The land revenue in 1901 was 2·5 lakhs. The country is composed of black cotton soil, and is hilly towards the north and east.

Jālna Town.—Head-quarters of the *tāluk* of the same name in Aurangābād District, Hyderābād State, situated in 19° 51′ N. and 75° 54′ E., on the right bank of the Kundlika, opposite the town of Kādirābād. Population (1901), 20,270, of whom 13,851 were Hindus, 5,812 Musalmāns, and 317 Christians. According to local traditions, Jālna was founded in the time of Rāma. During Sītā's residence it was styled Jānkapur, but the name was changed to Jālna by a rich Musalmān weaver. Abul Fazl, Akbar's minister, resided here for a time, and Aurangzeb is said to have visited the place occasionally during his viceroyalty. The only public buildings of any note are a mosque and a handsome stone *sarai*, erected according to the inscriptions on them in 1568, and a Turkish bath The town also contains a number of less important mosques and shrines, besides three Hindu temples, the principal one being that of Anandi Swāmi, which is of considerable size. The fort of Jālna, which was built in 1725, is now in ruins. Its gardens produce large quantities of fruit, which is exported to Bombay and elsewhere. The cantonment of Jālna, till recently a station of the Hyderābād Contingent, lies to the east of the town; it was built in 1827, but has been abandoned since 1903. There are several places of Christian worship, with a couple of schools attached.

Jālor. Head-quarters of a district of the same name in the State of Jodhpur, Rājputāna, situated in 25° 21′ N. and 72° 37′ E., 75 miles south of Jodhpur city. Population (1901), 7,443. It possesses a post office, an Anglo-vernacular school, and a hospital with accommodation for 8 in-patients. The principal manufactures are cotton cloth, camel saddles, and prettily engraved drinking vessels of bell metal. On a hill to the south and entirely commanding the town stands the fort, one of the most famous in Rājputāna. Built by the Paramāra Rājputs, its walls, composed of huge masses of cut stone, remain even now in a perfect state of preservation, although the place has been many times besieged. The fort is about 800 by 400 yards in extent, and accessible only by an ascent of 3 miles up a steep and

slippery stone roadway, passing three distinct lines of defence, all of considerable strength. Jālor was held by the Paramāras till towards the end of the twelfth century, when the Chauhān Rao Kirthi Pāl (of Nādol) took it and made it his capital. His grandson Udai Singh surrendered it to Shams-ud-dīn Altamsh about 1210, but it was immediately restored to him. About 100 years later, Alā-ud-dīn, after a lengthy siege, captured it from Kānardeo Chauhān, and a three-domed mosque, said to have been built by him, is still in good repair and daily use. About 1540 the fort and district passed into the possession of Rājā Māldeo of Jodhpur.

Jalpaigurī District.—District in the north-east of the Rājshāhi Division, Eastern Bengal and Assam, lying between 26° and 27° N. and 88° 20′ and 89° 53′ E., with an area of 2,962 square miles. It is bounded on the north by Darjeeling and the State of Bhutān; on the south by Dinājpur, Rangpur, and the State of Cooch Behār; on the west by Dinājpur, Purnea, and Darjeeling; on the east the Sankos river separates it from the Goālpāra District of Assam.

Physical aspects.

The District comprises two well-defined tracts, which differ alike in history and in administration. The older portion, which is known as the Regulation tract because it is administered under the ordinary laws and regulations in force in Bengal proper, lies for the most part west of the Tīsta, though it comprises also the Pātgrām *thāna* east of that river. It originally formed part of Rangpur, which it closely resembles. The continuous expanse of level paddy-fields is broken only by the groves of bamboos, palms, and fruit-trees which encircle the homesteads of the substantial tenant-farmers. In this tract there is but little untilled land, with the exception of an extensive and once valuable *sāl* (*Shorea robusta*) forest of 60 square miles, which belongs to the Raikat of Baikuntpur.

East of the Tīsta, and hemmed in between the States of Cooch Behār on the south and Bhutān on the north, lies a strip of submontane country 22 miles in width, which was annexed from Bhutān in 1865, and is known as the WESTERN DUĀRS. This part of the District is flat except in the north-east corner, where the Sinchulā Hills rise abruptly to a height of from 4,000 to 6,000 feet. On an outlying spur of this range, 2,000 feet in height, is built the military station of BUXA, which commands one of the principal passes into Bhutān.

The scenery along the foot of the mountains, where the great rivers debouch upon the plains, is very grand and beautiful, the blue outline of the Bhutān range forming a magnificent background. The principal rivers, proceeding from west to east, are the MAHĀNANDĀ, KARATOYĀ, TĪSTA, Jaldhākā, Duduyā, Mujnai, TORSĀ, Kāljāni, Raidāk, and Sankos, which all flow down from the hills in a southerly direction and

ultimately discharge their waters by various channels into the Ganges or the Brahmaputra. They are constantly changing their main channels, and the country is everywhere seamed by deserted river-beds. The Jaldhākā, or Di-chu, drains the eastern slopes of the Rishi La in Darjeeling District, of which it forms the eastern boundary. It joins the Torsā in Rangpur District, and the combined stream falls into the Brahmaputra by two mouths. Though a wide river, the Jaldhākā is very shallow and is fordable in every part during the winter months. The Duduyā and Mujnai, tributaries of the Jaldhākā, are navigable throughout the year by boats of 2 tons as far as the Alīpur-Jalpaigurī road and Fālākāta respectively. The Torsā rises in the Chumbi valley of Tibet, where it is known as the Amo-chu, and flows through Bhutān; it is navigable by cargo boats during the rains. The Kāljāni, which is formed by the combined waters of the Alaikurī and Dimā, after a course of a few miles enters the Cooch Behār State; it is used to float down timber from the forests at the foot of the hills. The Raidāk rises near the Chumalhari mountain in Tibet. This river and the Sankos, which forms the boundary between the Eastern and Western Duārs, thus separating Eastern Bengal from Assam, flow into the Brahmaputra a few miles below Dhubri. Both rivers are navigable by boats of 3 or 4 tons for a considerable portion of their course, but 5 or 10 miles before reaching the hills navigation is impeded by rapids.

With the exception of the Buxa hills, the District is covered by recent alluvial deposits, consisting of coarse gravels at the foot of the hills, sandy clay and sand along the course of the rivers, and fine sand consolidating into clay in the other parts of the river plain. The Buxa hills are composed of a series of beds named after them, which consist of variegated slates, quartzites, and dolomites, and are fringed on the south by low hills of Upper Tertiary strata. About half a mile west of Buxa copper ore occurs in greenish slate with quartzose layers, and copper ores are found also 4 miles north of Sām Sing Tea Estate, close to the boundary between Jalpaigurī and Darjeeling Districts. Masses of calcareous tufa occur along the base of the hills [1].

In the regulation portion of the District and the south of the Duārs the tree vegetation is sparse and rather stunted except in the Baikuntpur jungle, and the greater portion of the surface is covered with grasses, the commonest of these being *Imperata arundinacea* and *Andropogon aciculatus*. Among the trees, the most conspicuous is the red cotton-tree (*Bombax malabaricum*): the *sissū* (*Dalbergia Sissoo*), mango, jack, *pīpal*, and tamarind occur, as planted or sometimes self-sown species. The villages are surrounded by thickets or shrubberies of semi-spontaneous growth and weedy character. Areca palms are

[1] F. R. Mallet, 'Geology of Darjeeling and Western Duārs,' *Memoirs, Geological Survey of India*, vol. xi, part i.

common, and bamboos thrive luxuriantly. Along the north of the Duārs are large upland tracts of forest, part of which has been 'reserved' and is described below, declining southwards into plains of heavy grass jungle. Many varieties of orchids bloom in the forests; and there is a curious creeper, the *pāni lahrā* (*Vitis repanda*), from whose stem water is obtained.

The District is famous for its big game, which include wild elephants, bison, rhinoceros, buffaloes, tigers, leopards, bears, wild hog, swamp deer (*Cervus duvauceli*), and *sāmbar* (*Cervus unicolor*). A few elephants are caught on behalf of Government. The number of rhinoceros, bison, and buffaloes has been rapidly decreasing; and to prevent their extinction, they are now protected in the 'reserved' forests. Good mahseer fishing is to be had where the Jaldhākā, Torsā, Raidāk, and Sankos debouch from the Himālayas.

The temperature is rarely excessive; the mean, which is 62° in January, rises to 73° in March and 79° in April, but it does not reach its highest point until July and August, when it is 83°. The highest mean maximum is 90° in April, and the highest maximum recorded was 103° in 1899. Rainfall is exceptionally heavy, the average varying from 122 inches at Jalpaigurī town to 209 inches at Buxa; and the normal mean is 129 inches, of which 12·3 inches occur in May, 25·6 in June, 28·1 in July, 27·4 in August, and 21·4 in September.

In September, 1902, an exceptionally high flood caused great damage in the tract between Jalpaigurī and Mandalghāt, bounded on the east by the Tīsta and on the west by the railway embankment, and also in the Maynāgurī *tahsīl* between the Dharlā and the Tīsta; the roads and the railway embankment were breached, hundreds of cattle were drowned, and ten lives were lost. In the earthquake of 1897 much damage was done to roads by subsidence and the opening of deep fissures, and many bridges and buildings were destroyed.

History.

In prehistoric times the District formed part of the powerful kingdom of Prāgjyotisha or Kāmarūpa, as it was subsequently called, which extended as far west as the Karatoyā. There is a legend that a temple was originally erected on the site of the present temple at JALPES by a Rājā named Jalpeswar, in whose day the Jalpes *lingam* first appeared. There are extensive remains at BHITARGARH, which is said to have formed the capital of a Sūdra king named Prithu. The Bengal Pāl dynasty included this District in its dominions; and so did the Khen Rājās—Nīladhwaj, Chakradhwaj, and Nīlāmbar—of whom the first founded the city of KAMĀTĀPUR in Cooch Behār. It subsequently formed part of the Koch kingdom founded by Biswa Singh; and, when that kingdom fell to pieces, the western part was annexed by the Mughals. There was a long struggle for the possession of Pātgrām and Bodā; but

at the beginning of the eighteenth century they were nominally ceded to the Muhammadans, a cousin of the Cooch Behār Rājā continuing to farm them on his behalf. After the Muhammadan conquest it was included in the frontier *faujdāri* (magisterial jurisdiction) of Fakīrkundi or Rangpur, and passed to the East India Company with the cession of the Dīwāni in 1765.

The enormous area of the old District of Rangpur and the weakness of the administrative staff prevented the Collector from preserving order in the more remote parts, which thus became an Alsatia of banditti. In the year 1789 the Collector conducted a regular campaign against these disturbers of the peace, and with a force of 200 *barkandāz* blockaded them in the great forest of Baikuntpur. They were at last compelled to surrender, and within a single year no less than 549 robbers were brought to trial.

Meanwhile, the Duārs, or lowland passes, had fallen to the Bhotiās, who found here the cultivable ground that their own bare mountains did not afford. They exercised predominant influence over the whole tract from the frontier of Sikkim as far east as Darrang, and frequently enforced claims of suzerainty over the enfeebled State of Cooch Behār. They do not appear to have occupied this tract permanently, but merely to have exacted a heavy tribute, and subjected the inhabitants to the cruellest treatment. Cooch Behār was delivered from the Bhotiā tyranny by the treaty of 1773; but the Bhutān Duārs, as they were called, remained for nearly a century longer in a state of anarchy. They were annexed after the Bhutān War of 1865; they were then divided into the Eastern and Western Duārs, of which the former have since been incorporated with the District of Goālpāra. In 1867 the Dālingkot subdivision of the Western Duārs, which lies high up among the mountains, was added to Darjeeling, and the remaining part was in 1869 united with the Titalya subdivision of Rangpur to form the new District of Jalpaigurī.

The permanently settled portion of Jalpaigurī, which includes the old *chaklas* of Pātgrām and Bodā and the old Rāj of Baikuntpur, has no history of its own apart from the parent District of Rangpur. Its boundaries are perplexingly intermingled with those of the State of Cooch Behār, to which, as we have seen, it belonged until comparatively recent times. At the present day by far the wealthiest landowners are the Mahārājā of Cooch Behār and the Raikat of Baikuntpur, who is descended from a younger branch of the same family.

In addition to the old fort at BHITARGARH and the temple at JALPES, there are the remains at Bodā of a smaller fort about a mile square, supposed to be coeval with the fort at Bhitargarh. In the south of the District, small forts, temples, and old tanks are numerous.

The population increased from 417,855 in 1872 to 580,570 in 1881,

to 680,736 in 1891, and to 787,380 in 1901. Though the figures for 1872 cannot be accepted as accurate, there has been a continuous growth of population due entirely to the rapid development of the Western Duārs; and in 1901 more than one-fifth of the population was composed of immigrants from elsewhere. Malaria is always prevalent in the *tarai*, and in eight years of the decade ending 1901 Jalpaigurī figured among the six Districts with the highest recorded mortality from fever in Bengal. Spleen and goitre are common diseases, and the proportion of persons suffering from insanity and deaf-mutism is higher than in most parts of Bengal.

Population.

The chief statistics of the Census of 1901 are shown below:—

Subdivision.	Area in square miles.	Number of Towns.	Number of Villages.	Population.	Population per square mile.	Percentage of variation in population between 1891 and 1901.	Number of persons able to read and write.
Jalpaigurī	1,820	1	588	668,027	367	+ 9·8	27,605
Alīpur	1,142	1	178	119,353	105	+ 64·7	3,229
District total	2,962	2	766	787,380	266	+ 15·7	30,834

The two towns are JALPAIGURĪ, the head-quarters, and the cantonment at BUXA. Outside these, more than half of the population are contained in villages with 2,000 or more inhabitants, and only 13 per cent. in villages with a population of less than 500. The census village in this District was, however, merely a territorial unit and did not correspond to the residential village. The latter, in fact, can scarcely be said to exist; for the country is divided into small farms each with its central homestead, the residence of the farmer or *jotdār*, surrounded by the houses of his immediate relatives and perhaps an under-tenant or two. In the north-west of the District the conditions of the tea industry have given rise to large settlements of labourers, the average population of which is over 3,000 souls. The density is very low; in only one *thāna* does the population exceed 500 per square mile, and in only three more does it exceed 400. The Duārs, which were very sparsely inhabited when first acquired, carry a smaller population than the rest of the District. Towards the west this tract has filled up rapidly owing to the extension of tea cultivation; but in the east the population is still very scanty, and in the Alīpur *thāna* it averages only 89 persons per square mile, in spite of an increase of 70 per cent. during the last ten years. There is a steady movement of the population from the west of the District towards the extensive tracts of cultivable land east of the Tīsta, and there is also an enormous immigration of tea-garden coolies from Chotā Nāgpur and the Santāl Parganas; Rānchī alone supplies 80,000, chiefly Oraons and Mundās, and the Santāl Par-

ganas 11,000. Many of these coolies are settling down permanently, either in the gardens or as cultivators and cart-owners, but many return home at intervals. In the tea gardens on the higher slopes at the foot of the hills, Nepālese replace men from Chotā Nāgpur, and many of these also find a permanent home in the District. Numerous up-country coolies are employed on the roads and railways, but most of them return home at the end of the cold season.

A corrupt dialect of Bengali, known as Rangpurī or Rājbansī, is the language of the District, being spoken by 77 per cent. of the population; Hindī is the language of 6 per cent. and Kurukh of 7 per cent.; Mech is spoken by over 20,000 persons, and Khās, Mundārī, and Santālī by more than 10,000 each. This great diversity of languages is due to the large number of immigrants. Hindus (534,625) form 68 per cent. of the population, Muhammadans (228,487) 29 per cent., and Animists 2 per cent., while the remainder are Christians or Buddhists.

The proportion of Muhammadans has declined since 1872, when they formed 34·6 per cent. of the population. They are chiefly Shaikhs and Nasyas, and are, for the most part, converts from the aboriginal Koch and Mech races. They still retain many beliefs and superstitions derived from their ancestors, and live on good terms side by side with the Rājbansis (Koch), to whom more than three-fifths of the Hindu population belong; it is, in fact, not unusual to find Muhammadan and Rājbansi families dwelling together in the same homestead, although in separate houses. The Mechs, a western branch of the great Kāchāri tribe, number about 22,000, found chiefly in the Alīpur and Fālākāta *thānas* in the Duārs. These, like their Gāro neighbours, are a nomadic people, who live by agriculture in its simplest and most primitive form. No less than 89·4 per cent. of the population, or over 700,000 persons, are supported by agriculture—a very high proportion; a sixth of these derive their livelihood from the tea gardens. Of the remainder, industries maintain 4·6, commerce 0·3, and the professions 0·6 per cent.

The Baptist Missionary Society has a branch in Jalpaiguri town; the Church Missionary Society carries on work among the Santāl colony in the Alīpur subdivision, the Scandinavian Alliance Mission among the Bhotiās, and the Free Church of Scotland among the tea-garden coolies. The number of native Christians is 2,141.

Agriculture.

The alluvial soil with which the greater part of the District is covered is extremely fertile. In the low levels between the Tīsta and the Sankos coarse rice, oilseeds, potatoes, castor, and areca palms grow abundantly. West of the Tīsta, a superior variety of jute, known as *rājganja*, is grown, and also fine rice and wheat. In the basin between the Tīsta and the Jaldhākā a hard black clayey soil is found, which yields excellent pasture and fine

crops of tobacco. The ferruginous clay of the uplands in the north of the Duārs is exceptionally well suited to the tea plant.

The chief agricultural statistics for 1903-4 are shown below, areas being in square miles :—

Subdivision.	Total.	Cultivated.	Cultivable waste.	Forest.
Jalpaigurī . .	1,820	934	296	137
Alīpur . . .	1,142	432	341	359
Total	2,962	1,366	637	496

The staple food-crop of the District is rice, grown on 1,017 square miles, or 74 per cent. of the net area cropped; the winter rice, which is the chief crop, covering 54 per cent. of that area. The cultivation of the early rice, which is sown broadcast on high lands, begins in March. The early varieties, sown in March or April, are reaped in June and July; but the greater part is sown in April and May, and not reaped till August or September. The winter rice is sown broadcast in nurseries in May and June, transplanted from the middle of July to the middle of September, and reaped during December and January. After rice, tobacco is most widely grown, occupying 185 square miles, or nearly 14 per cent. of the cultivated area; Jalpaigurī is, in fact, after Rangpur, the chief tobacco-producing District in Eastern Bengal.

Tea is cultivated on 121 square miles, or 9 per cent. of the area under cultivation. This industry was introduced in 1874, and is carried on mainly by European enterprise and with European capital. In 1876 there were thirteen gardens, with an area of 818 acres, yielding 29,520 lb. of tea. The cultivation was very rapidly extended during the last decade of the nineteenth century; and by 1901 the number of gardens had increased to 235, with a planted area of 109 square miles, and an out-turn of over 31,000,000 lb. These gardens also possessed an unplanted area of 255 square miles. In 1903 the number of gardens decreased to 207, but the gross yield in that year amounted to nearly 37,000,000 lb. Jalpaigurī has an important advantage over the tea Districts of Assam, as labour finds its way thither freely and no special law is necessary to enforce labour contracts. The production of tea of late years has increased so much more rapidly than its consumption that there has been a heavy fall in prices, and the industry has suffered in consequence. Jute cultivation is extending rapidly, and in 1903 occupied 103 square miles. Mustard is also widely cultivated, and cotton is grown in small quantities by the Gāros and Mechs on uplands at the foot of the Bhutān hills.

The area under cultivation is extending rapidly in the Western Duārs, where there is still much cultivable waste; the rates of rent are very

low, and cultivators are attracted not only from the *thānas* west of the Tīsta, but also from Rangpur and Cooch Behār State. Little use has been made of the Agriculturists' and Land Improvement Loans Acts; during the decade ending 1901–2 an average of Rs. 2,000 per annum was advanced under the former Act.

The local cattle are small and weakly, and no attempts have been made to improve the breed. Pasturage is so abundant that in the northern *thānas* of the Western Duārs rice straw is left to rot in the fields, while large herds of cattle from Bengal and Bhutān are brought to graze in the Baikuntpur jungle during the winter months. Fairs are held at ALĪPUR, JALPES, and FĀLĀKĀTA.

The soil for the most part derives sufficient moisture from the heavy rainfall, but low lands are in some places irrigated from the hill streams.

Forests.

Jalpaigurī contains extensive forests, which are the property of Government. With the exception of 5 square miles of 'protected' forests in the Government estates of Fālākāta and Maynāgurī, which are managed by the Deputy-Commissioner, these are all 'reserved' forests under the management of the Forest department. The latter in 1903–4 yielded a revenue of Rs. 1,18,000. They are divided into the Jalpaigurī and Buxa divisions, the former comprising all the forests between the Tīsta and the Torsā rivers, with an area of 183 square miles; and the latter, those between the Torsā and the Sankos, with an area of 308 square miles. The trees are of many different kinds, but there are five well-defined types: namely, *sāl* (*Shorea robusta*); mixed forest without *sāl*, mixed *chilauni* (*Schima Wallichii*) forest; *khair* (*Acacia Catechu*) and *sissū* (*Dalbergia Sissoo*) forest; and savannahs. Of these the *sāl* is the most important, and occurs either nearly pure or mixed with varying proportions of *Dillenia pentagyna*, *Careya arborea*, *Sterculia villosa*, *Schima Wallichii*, *Terminalia tomentosa*, and *T. bellerica*, &c. The mixed forests are composed chiefly of *Lagerstroemia parviflora*, *Callicarpa arborea*, *Sterculia villosa*, *Hymenodictyon trijuga*, and often *Terminalia tomentosa* and *Albizzia*. The *chilauni* type of forest is more clear of other subsidiary species than ordinary mixed forest, the *chilauni* being the predominant species and growing to a large size. *Khair* and *sissū* are found pure in the alluvial deposits of most of the large rivers. The savannahs, or large stretches of grass land devoid of trees, deserve mention both on account of their extent and their bearing on the work of fire protection. The *sāl* forest belonging to the Raikat of Baikuntpur is now of little value, owing to promiscuous felling. The Rājbansis and Mechs collect what little jungle produce there is, principally chiretta, lac, and beeswax. Small quantities of long pepper (*Piper longum*) are also collected by the Forest department.

The only mineral of importance is limestone, which is largely

quarried in the shape of calcareous tufa along the base of the Bhutān hills. A small copper-mine at Chunābāti, 2 miles from Buxa, was formerly worked by Nepālese. Coal is found near Bāgrākot, and a company has been formed to work it.

Trade and communications.

Gunny cloth of a very coarse quality is woven in the western part of the District. The lower classes also manufacture for home use a coarse silk (called *endi*) from the silk of worms fed on the castor-oil plant, and a striped cotton cloth called *photā*.

The development of the tea industry and the influx of a large cooly population into the Duārs, combined with the facilities of railway communication, have given a great impetus to trade; and at the large markets which have sprung up in the neighbourhood of the tea gardens, the cultivator finds a ready market for his rice, vegetables, and other produce. There is also a fair amount of trade with Bhutān, which has been stimulated by the establishment of fairs at FĀLĀKĀTA and ALĪPUR. The chief exports to Bhutān are European piece-goods and silk, while timber and oranges are the principal imports. The local supply of rice being insufficient, considerable quantities are imported from Dinājpur; cotton piece-goods, machinery, corrugated iron, kerosene oil, coal and coke are also imported on a large scale. The tea, tobacco, and jute crops are all grown for export. The tea and jute are railed to Calcutta; the tobacco trade is chiefly in the hands of Arakanese who export the leaves to Burma, where they are made into cheroots. The railways have now monopolized most of the trade; but *sāl* timber is floated down from the forests of the Western Duārs and the Baikuntpur jungle to the Brahmaputra *en route* for Sirājganj, Dacca, and elsewhere; and tobacco, mustard seed, jute, cotton, and hides are also exported by water to these markets, the chief centre being Baura. The up-stream traffic is practically confined to the importation of earthen cooking utensils, coco-nuts, molasses, small quantities of *dāl* (*Arabica revalenta*), and miscellaneous articles from Dacca and Farīdpur. Apart from the large tea-garden markets and the fair of JALPES, the principal trading centres are JALPAIGURĪ TOWN, Titālya on the Mahānandā where the great north road enters the District, Rājnagar, Sāldānga, Debīganj on the Karatoyā, BAURA, Jorpokri, Maynāgurī, Fālākāta, Alīpur, and Buxa.

The District is well served by railways. The western portion is traversed from south to north by the Eastern Bengal State Railway, which has its northern terminus just over the Darjeeling border at Silīgurī. The Bengal-Duārs Railway leaves the Pārvatīpur-Dhubri branch of the Eastern Bengal State Railway at Lālmanir Hāt, and runs north-west through Pātgrām to Barnes Ghāt, on the east bank of the Tīsta opposite Jalpaigurī town, where a ferry connects with the

Eastern Bengal State Railway; at Māl Bāzār it bifurcates, one branch running west through Dām-Dim to Bāgrākot, and another east to Mādāri Hāt. In the east the Cooch Behār State Railway enters the District at Alīpur and runs north to Jaintī.

The District contains 877 miles of road, of which 106 miles are maintained by the Public Works department and the remainder by the District board. Of the latter, 24 miles are metalled and 747 miles are unmetalled. There are also 10 miles of village tracks. In spite of the improvement and increase in the number of roads during recent years, there is still a great deficiency in some parts of the Duārs east of the Jaldhākā river, in which it is extremely difficult to maintain good roads owing to the heavy rainfall and the rapid growth of jungle. The principal routes are those which connect Jalpaigurī town with Silīgurī, with the northern border via Dām-Dim, with a ferry on the Sankos river, and with Alipur. The last-mentioned road is in very good order, being well raised and bridged, except at the larger rivers, which have ferries. The central emigration road, which runs east from Dinājpur through Jalpaigurī District as far as Haldībāri station and thence through the Cooch Behār State, is an important feeder to the Eastern Bengal State Railway. The board also maintains several important Provincial roads, including the Ganges-Darjeeling road, which runs for 16 miles along the north-western border of the District from Titālya to Silīgurī, the branch-road from Titālya to Jalpaigurī, and the road from Jalpaigurī to Pātgrām. There are 80 ferries, which, with six unimportant exceptions, belong to the District board, and bring in an annual revenue of Rs. 18,000; the most important are those over the Tīsta and Jaldhākā rivers. Of late years there has been a considerable decrease in the number of ferries, owing to the opening of the Bengal-Duārs Railway and to the bridging of sixteen streams which formerly required ferries.

Administration. For general administrative purposes the District is divided into two subdivisions, JALPAIGURĪ and ALĪPUR. The former is immediately under the Deputy-Commissioner; he is assisted by five Deputy-Magistrate-Collectors, of whom two are employed exclusively on revenue work. The Alīpur subdivision is in the charge of a European Deputy-Magistrate Collector. The Maynāgurī, Fālākāta, and Alīpur circles in the settled tracts of the Duārs are in charge of three Sub-Deputy-Collectors. Two Forest officers manage the Jalpaigurī and Buxa divisions, and an extra assistant Conservator is attached to the former division.

Jalpaigurī forms, with Rangpur, the charge of a single District and Sessions Judge, and the Sub-Judge of Dinājpur is an additional Sub-Judge in this District. The other civil courts are those of two Munsifs at Jalpaigurī town and of the subdivisional officer of Alīpur, who is

vested with the powers of a Munsif within his subdivision. The Deputy-Commissioner has special additional powers under section 34 of the Criminal Procedure Code. Subordinate to him are three Deputy-Magistrates at head-quarters, the subdivisional officer of Alīpur, and three benches of honorary magistrates, who sit at Jalpaigurī, Bodā, and Debīganj. As in other parts of Eastern Bengal, cases due to disputes about land are common, and dacoities are not infrequent.

Pātgrām, Bodā, and the Baikuntpur estate were permanently settled in 1793 as part of the province of Rangpur. The WESTERN DUĀRS have been settled temporarily from time to time, the last settlement having been concluded in 1895. The current demand for land revenue in 1903–4 was 7·53 lakhs, of which Rs. 1,37,000 was payable by 82 permanently settled estates, Rs. 1,97,000 by 205 temporarily settled estates, and the remainder by 5 estates managed direct by Government. In the permanently settled portion of the District rents vary from Rs. 1–9 an acre, which is paid for cultivable waste, and Rs. 1–15 for once-cropped land, up to Rs. 9–2 for the best jute, rice, and homestead lands. In special cases higher rates are charged, Rs. 15 being sometimes paid for bamboo land and Rs. 24–4 for betel-leaf gardens or areca groves. In the Duārs, where Government is the immediate landlord, rates rule considerably lower: namely, 3 annas for waste, from Rs. 1–2 to Rs. 1–6 for high land, from Rs. 1–6 to Rs. 2 for low land, according to the situation with reference to markets and roads, and Rs. 3 for homestead land. In the Duārs about half the area has been let out by the *jotdārs*, or tenants holding immediately under Government, to *chukānidārs*, or sub-tenants, whose holdings have been recognized as permanent.

The following table shows the collections of land revenue and total revenue (principal heads only), in thousands of rupees:—

	1880–1.	1890–1.	1900–1.	1903–4.
Land revenue	3,62	4,23	7,03	7,46
Total revenue	5,37	7,54	12,43	13,49

Outside JALPAIGURĪ municipality and BUXA cantonment, local affairs are managed by the District board, in subordination to which a local board has recently been constituted at Alīpur. In 1903–4 the income of the District board was Rs. 1,35,000, of which Rs. 69,000 was obtained from rates; and the expenditure was Rs. 1,21,000, including Rs. 84,000 spent on public works.

The District contains 11 *thānas* or police stations and 10 outposts. The force subordinate to the District Superintendent consists of 2 inspectors, 25 sub-inspectors, 29 head constables, and 287 constables, besides a rural police of 1,467 village watchmen, grouped in circles

under 78 head watchmen. The District jail at Jalpaigurī town has accommodation for 122, and a subsidiary jail at Alīpur for 22 prisoners.

Owing partly to the sparse population and the absence of regular village sites, education is very backward, and the proportion of persons able to read and write in 1901 was only 3·9 per cent. (7 males and 0·4 females). Considerable progress has, however, been made. The total number of pupils under instruction increased from 3,582 in 1882 to 7,623 in 1892-3 and to 12,033 in 1900-1, while 13,013 boys and 935 girls were at school in 1903-4, being respectively 20·5 and 1·7 per cent. of those of school-going age. The number of educational institutions, public and private, in that year was 563, including 15 secondary and 528 primary schools. The expenditure on education was Rs. 67,000, of which Rs. 13,000 was met from Provincial funds, Rs. 20,000 from District funds, Rs. 750 from municipal funds, and Rs. 22,000 from fees. The figures include one small school for aboriginal tribes at Buxa.

In 1903 the District contained 8 dispensaries, of which 4 had accommodation for 30 in-patients. At these the cases of 38,000 out-patients and 480 in-patients were treated during the year, and 840 operations were performed. The expenditure was Rs. 12,000, of which Rs. 4,000 was met from Government contributions, Rs. 3,000 from Local and Rs. 1,600 from municipal funds, and Rs. 3,000 from subscriptions.

Vaccination is compulsory only in Jalpaigurī municipality. In 1903-4 the number of successful vaccinations was 25,000, representing 32 per 1,000 of the population. There is less opposition to infant vaccination than in most parts of East and North Bengal.

[Martin, *Eastern India*, vol. iii (1838); Sir W. W. Hunter, *Statistical Account of Bengal*, vol. x (1876); D. Sunder, *Report on the Settlement of the Western Duārs* (Calcutta, 1895).]

Jalpaigurī Subdivision.—Head-quarters subdivision of Jalpaigurī District, Eastern Bengal and Assam, lying between 26° and 27° N. and 88° 20′ and 89° 7′ E., with an area of 1,820 square miles. The population was 668,027 in 1901, compared with 608,289 in 1891. It contains one town, JALPAIGURĪ (population 9,708), its head-quarters, and 588 villages, and has a density of 367 persons per square mile, or more than three times that of the Alīpur subdivision. The general aspect of the subdivision is that of an extensive plain, undiversified by hills or any large sheet of water, but containing extensive forests. The country is level and open, and is watered by several large rivers, including the Tista and Jaldhākā. It comprises two totally distinct tracts. The Maynāgurī and Dām-Dim *thānas* and the Dhupgāri outpost, which form part of the WESTERN DUĀRS acquired from Bhutān in 1865, are rapidly increasing in population and prosperity on account

of the expansion of the tea industry; while the population of the western *thānas*, which are permanently settled and originally formed part of Rangpur, is declining. There are interesting ruins at BHITARGARH and JALPES. The chief centres of commerce are Jalpaigurī town, Titālya, BAURA, and Maynāgurī.

Jalpaigurī Town.—Head-quarters of Jalpaigurī District, Eastern Bengal and Assam, situated in 26° 32′ N. and 88° 43′ E., on the right bank of the Tīsta. Population (1901), 9,708. The town, though small, is progressive, and is the chief distributing centre in the District. It is served by the Eastern Bengal State Railway, while Barnes Ghāt on the east bank of the Tīsta, opposite to the town, is a station on the Bengal-Duārs Railway, and the smaller marts and the tea gardens are supplied by its traders. Jalpaigurī was constituted a municipality in 1885. The income during the decade ending 1901–2 averaged Rs. 20,000, and the expenditure Rs. 18,000. In 1903–4 the income was Rs. 30,000, including Rs. 9,000 obtained from a tax on persons (or property tax) and Rs. 7,000 from a conservancy rate; and the expenditure was Rs. 25,000. Rs. 24,000 has been spent on a drainage scheme, for which an estimate of Rs. 30,000 has been sanctioned by Government. Jalpaigurī is the head-quarters of the Commissioner of the Rājshāhi Division, an Inspector of schools, an Executive Engineer, and of the Deputy-Conservators of Forests in charge of the Buxa and Jalpaigurī divisions; it is also the head-quarters of a detachment of the Northern Bengal Mounted Rifles. The town contains the usual public offices. The District jail has accommodation for 122 prisoners, who are employed in oil-pressing, twine and rope-weaving, stone-breaking, cane-work, and *dāl* and rice-husking, the products being disposed of locally. The chief educational institution is a high school maintained by Government, with 270 pupils on its rolls.

Jalpes.—Village in the head-quarters subdivision of Jalpaigurī District, Eastern Bengal and Assam, situated in 26° 31′ N. and 88° 52′ E. Population (1901), 2,088. It contains a temple of Siva, which was built on the site of an earlier temple by one of the Cooch Behār Rājās about three centuries ago. This, the most conspicuous ruin in the District, is a massive red-brick building, surmounted by a large dome with an outer diameter of 34 feet, round the base and top of which run galleries: it stands on a mound surrounded by a moat near the bank of the river Jarda. A flight of steps leads down to the basement, which is sunk some depth in the mound and contains a very ancient *lingam*. This *lingam* is in the hymns to Siva called *anādi* ('without beginning'), and is referred to in the Kālika Purāna, which says that somewhere in the north-west of Kāmarūpa Mahādeo appeared himself in the shape of a vast *lingam*. An old-established fair is held at Jalpes on the occasion of the Sivarātrī festival in February; it lasts

for about a fortnight and is attended by the people from all parts of the District as well as from Dinājpur, Rangpur, and elsewhere. Bhotiās come from Darjeeling, Buxa, and Bhutān with ponies, skins, cloth, and blankets, and take away cotton and woollen cloths, betel-nut, and tobacco.

[Martin, *Eastern India*, vol. iii, pp. 441–2.]

Jamālābād.—A precipitous rock rising to a height of 1,788 feet at the end of a spur of the KUDREMUKH in the Uppinangadi *tāluk* of South Kanara District, Madras, situated in 13° 2′ N. and 75° 18′ E. On his return from Mangalore in 1784, Tipū, struck with the strength of the position, built and garrisoned a fortress on the top, calling it Jamālābād in honour of his mother Jamāl Bai, and made the town at the foot the residence of an official. The fort was captured by the British in 1799, but shortly afterwards fell into the hands of the adherents of a Mysore pretender. The garrison, however, was forced to surrender after a three months' blockade in June, 1800. The town, formerly known as Narasimhangadi, no longer exists.

Jamālpur Subdivision.—North-western subdivision of Mymensingh District, Eastern Bengal and Assam, lying between 24° 43′ and 25° 26′ N. and 89° 36′ and 90° 18′ E., with an area of 1,289 square miles. The subdivision is an alluvial tract, intersected by numerous rivers and streams. The population in 1901 was 673,398, compared with 579,742 in 1891. It contains two towns, JAMĀLPUR (population, 17,965), the head-quarters, and SHERPUR (12,535); and 1,747 villages. The density is 522 persons per square mile, against 618 for the whole District. The ruins of an old mud fort, said to have been built by an independent Muhammadan chief, are still in existence at Garh Jaripā.

Jamālpur Town (1).—Head-quarters of the subdivision of the same name in Mymensingh District, Eastern Bengal and Assam, situated in 24° 56′ N. and 89° 56′ E., on the west bank of the old Brahmaputra. Population (1901), 17,965. It is connected with Nasīrābād, 35 miles distant, by a good road and also by the Dacca-Mymensingh branch of the Eastern Bengal State Railway, which has recently been extended to the Brahmaputra at JAGANNĀTHGANJ. Jamālpur was constituted a municipality in 1869. The income during the decade ending 1901-2 averaged Rs. 11,700, and the expenditure Rs. 10,300. In 1903–4 the income was Rs. 12,000, mainly derived from a property tax and a conservancy rate; and the expenditure was Rs. 11,000. Jamālpur was a military station prior to the Mutiny. The town possesses the usual public buildings. The sub-jail, which was once the magazine, is a specimen of the solid masonry of an early period; it has accommodation for 27 prisoners.

Jamālpur Town (2).—Town in the head-quarters subdivision of

Monghyr District, Bengal, situated in 25° 19′ N. and 86° 30′ E., at the foot of the Monghyr hills, on the loop-line of the East Indian Railway, 299 miles from Calcutta. The population at the Census of March, 1901, was 13,929, compared with 18,089 in 1891; but a second enumeration eight months later disclosed a population of 16,302. The decrease on the first occasion was chiefly due to many persons having left the town on account of the plague; but subsidiary causes were the transfer of the audit department of the East Indian Railway to Calcutta and the introduction of workmen's trains from the neighbouring stations, owing to which many of the workmen have settled outside the town. Jamālpur is the head-quarters of the locomotive department of the East Indian Railway, and contains the largest manufacturing workshops in India. Locomotives are put together, and railway material of all descriptions is made in malleable iron, cast-iron, and steel. The works cover an area of 99 acres, and employ about 230 Europeans and 9,000 native mechanics and labourers. Jamālpur was constituted a municipality in 1883. The income and expenditure during the decade ending 1901–2 averaged Rs. 20,000. In 1903–4 the income was Rs. 25,000, mainly derived from a tax on houses and lands and a conservancy rate; and the expenditure was Rs. 22,000. There is no municipal water-supply, but the workshops obtain a supply from reservoirs constructed at the base of the hills. Jamālpur contains an Institute, comprising a library, reading and billiard-rooms, an entertainment hall, and swimming bath; also a church and aided schools for Europeans and natives.

Jamar.—Petty State in KĀTHIĀWĀR, Bombay.

Jambusar Tāluka.—Northern *tāluka* of Broach District, Bombay, lying between 21° 54′ and 22° 15′ N. and 72° 31′ and 72° 56′ E., with an area of 387 square miles. The population in 1901 was 61,846, compared with 82,396 in 1891. The density, 160 persons per square mile, is below the District average. The *tāluka* contains one town, JAMBUSAR (population, 10,181), its head-quarters; and 81 villages. The land revenue and cesses in 1903–4 amounted to 5·3 lakhs. The country consists of two tracts of level land. Towards the west lies a barren plain, and in the east is a well-wooded stretch of light soil. In the latter tract are large and sweet springs, but in the former the water supply is defective. The staple crops are *jowār*, *bājra*, and wheat; while miscellaneous crops include pulses, peas, tobacco, cotton, and indigo.

Jambusar Town.—Head-quarters of the *tāluka* of the same name in Broach District, Bombay, situated in 22° 3′ N. and 72° 48′ E., 5 miles north of the Dhādhar river, and 27 miles from Broach city. Population (1901), 10,181. The town was first occupied by the British in 1775 and remained in their possession until 1783, when it was restored

to the Marāthās. Under the Treaty of Poona (1817) it was finally surrendered to the British. To the north of the town is a lake of considerable size sacred to Nāgeshwar, the snake-god, with richly wooded banks, and in the centre of the water rises a small island about 40 feet in diameter, overgrown with mango and other trees. The water-supply is chiefly derived from this tank. In the town is a strong fort, erected by Mr. Callender when Jambusar was held by the British from 1775 to 1783. This fort furnishes accommodation for the treasury, the civil courts, and other Government offices. The town contains a Sub-Judge's court, a dispensary, and 7 schools—6 (including an English school) for boys and one for girls—attended respectively by 553 and 106 pupils.

The municipality, established in 1856, had an average income of about Rs. 12,000 during the decade ending 1901. In 1903–4 the income was Rs. 13,900, including grants of Rs. 2,000 from Government for education. In former times, when Tankāri, 10 miles south-west of Jambusar, was a port of little less consequence than Broach, Jambusar itself enjoyed a considerable trade. Indigo was then the chief export. With the opening of a railway (1861), the traffic by sea at Tankāri fell off considerably. On the other hand, Jambusar is only 18 miles distant from the Pālej station on the Bombay, Baroda, and Central India Railway; and, as roads have been made connecting Jambusar with both Pālej and Broach, a traffic by land has to some extent taken the place of the old sea-borne trade. It is in contemplation to connect Broach and Jambusar by rail. There are six cotton-ginning factories. Tanning, the manufacture of leather, and calico-printing are carried on to a small extent, and there are also manufactures of ivory armlets and toys.

Jamesābād (formerly Sāmāro).—*Tāluka* of Thar and Pārkar District, Sind, Bombay, lying between 24° 50′ and 25° 28′ N. and 69° 14′ and 69° 35′ E., with an area of 505 square miles. The population in 1901 was 24,038, compared with 19,208 in 1891. The density, 48 persons per square mile, is considerably above the District average. The *tāluka* contains 184 villages, of which Jamesābād is the head-quarters. The land revenue and cesses in 1903–4 amounted to 3.7 lakhs. The *tāluka* is chiefly irrigated by the Jāmrao canal. *Bājra*, *jambho*, and wheat are the principal crops.

James and Mary Sands.—A dangerous shoal in the Hooghly river, Bengal, situated in 22° 14′ N. and 88° 5′ E., between the confluence of the Dāmodar and Rūpnārāyan rivers with the Hooghly. The sands are 3 miles long and a third of a mile in width. They are so named from the wreck of the ship *Royal James and Mary* which took place on these sands in 1694. The sands occupy the centre of the river, leaving channels on either side, known as the

Eastern and Western Gut; they are probably due to the diminution of the velocity of the current of the main channel, caused by the water of the Rūpnārāyan entering the Hooghly nearly at right angles. Various schemes have been suggested for evading this dangerous shoal; and it has more than once been proposed to dig a short canal at the back of Hooghly Point so as to avoid the sands, or to construct ship canals from the docks to Diamond Harbour or to Canning on the Mātla river. The problem was examined in 1865 and again in 1895 by experts, both of whom suggested the construction of walls to train the channel into the Western Gut. Neither proposal has been adopted by the Port Commissioners, who are at present considering another scheme to improve the existing channels by dredging.

Jamikunta.—*Tāluk* in Karīmnagar District, Hyderābād State, with an area of 626 square miles, including *jāgīrs*. The population in 1901 was 121,518, compared with 134,309 in 1891, the decrease being due to famine and cholera. The *tāluk* contains 158 villages, of which 9 are *jāgīr*; and Jamikunta (population, 2,687) is the head-quarters. The land revenue in 1901 was 4 lakhs. The *tāluk* is hilly towards the west, while isolated hills are seen everywhere. There is hardly any forest. Rice is largely cultivated, being irrigated from tanks.

Jamīrāpāt.—A long winding ridge about 2 miles wide in the Surgujā State, Central Provinces, lying between 23° 22′ and 23° 29′ N. and 83° 35′ and 83° 41′ E. It rises to a height of 3,500 feet and forms part of the eastern boundary of the State where it borders on Chotā Nāgpur proper.

Jamka.—Petty State in KĀTHIĀWĀR, Bombay.

Jamkhandi State.—State under the Political Agent of Kolhāpur and the Southern Marāthā Country, Bombay, lying between 16° 26′ and 16° 47′ N. and 75° 7′ and 75° 37′ E., with an area of 524 square miles[1]. The State was granted by the Peshwā to a member of the Patvardhan family. In 1808 it was divided into two shares, one of which, Tāsgaon, lapsed to the British Government in 1848, through failure of heirs, while the other forms the present Jamkhandi State. The population in 1901 was 105,357, the density being 201 persons per square mile. Hindus formed 87 per cent., and Muhammadans 10 per cent. of the total. The State contains 8 towns, the chief being JAMKHANDI (population, 13,029), and 79 villages. A soft stone of superior quality is found near the village of Marigudi. The crops include cotton, wheat, the ordinary varieties of pulse, and millet; and the manufactures, coarse cotton cloth and native blankets for home consumption. The chief, who is a Brāhman by caste, ranks as a first-class Sardār of the Southern Marāthā Country. He holds a

[1] These spherical values exclude the outlying *tāluka* of Kundgol, situated between 15° 7′ and 15° 9′ N. and 75° 13′ and 75° 23′ E.

sanad of adoption, and succession follows the rule of primogeniture. He has power to try his own subjects for capital offences. He maintains a force of 43 horse and 214 foot soldiers; and he pays to the British Government a tribute of Rs. 20,516. The revenue in 1903–4 was nearly 5·5 lakhs, of which 4·4 lakhs was derived from the land; and the expenditure was about 5 lakhs. A survey was introduced in the State in 1881–2. The State possesses six municipalities, the largest being Jamkhandi with an income of Rs. 10,000, and the smallest Hunnur with an income of Rs. 600. In 1903–4 there were 42 schools, including an English school, and the total number of pupils was 1,588. The State has a Central jail and 4 subordinate jails, with a daily average of 36 prisoners in 1903–4; and one hospital and three dispensaries, which treated 38,100 patients. In the same year about 2,300 persons were vaccinated.

Jamkhandi Town.—Capital of the State of the same name in Bombay, situated in 16° 30′ N. and 75° 22′ E., 70 miles north-east of Belgaum, and 68 miles east of Kolhāpur. Population (1901), 13,029. Jamkhandi is a municipality, with an income in 1903–4 of about Rs. 10,000. The town has about 500 looms and an extensive trade in silk cloths. It contains a high school and a hospital. An annual fair is held in honour of the god Umā Rāmeshwar, lasting for six days and attended by 20,000 people.

Jāmkhed.—*Tāluka* of Ahmadnagar District, Bombay, in the south-east corner of the District, surrounded by the Nizām's Dominions. The largest compact portion lies between 18° 33′ and 18° 52′ N. and 75° 11′ and 75° 35′ E. The area is 460 square miles, and the *tāluka* contains one town, KHARDA (population, 5,930), and 75 villages. The head-quarters are at Jāmkhed. The population in 1901 was 64,258, compared with 76,208 in 1891, the decrease being due to famine. The density, 140 persons per square mile, is above the District average. The demand for land revenue in 1903–4 was one lakh, and for cesses Rs. 7,000. Most of the villages are situated in the valley of the Sīna, and a few on the Bālāghāt, an elevated and bare table-land, which gradually subsides eastward to the general level of the Deccan and is watered by a tributary of the Godāvari. Several streams rise in the small spurs which jut from the Bālāghāt range, the most notable being the Inchāna, which falls in a fine cascade, 219 feet high, through a ravine to the north-east of Jāmkhed village. Whereas the soil of the Sīna valley is deep and difficult to work, that of the Bālāghāt is of lighter texture and repays cultivation; while the country lying between this range and the boundary of Shevgaon is extremely fertile and well-watered, except in the vicinity of the Sīna river, where the rainfall is uncertain. The climate of Jāmkhed is healthy, and the annual rainfall averages about 26 inches.

Jāmki.—Town in the Daska *tahsīl* of Siālkot District, Punjab, situated in 32° 23′ N. and 74° 24′ E. Population (1901), 4,216. It is said to have been originally called Pindi Jām from its joint founders, Pindi, a Khattrī, and Jām, a Chīma Jat. It is of no commercial importance. The municipality was created in 1867. The income during the ten years ending 1902–3 averaged Rs. 5,200, and the expenditure Rs. 5,100. In 1903–4 the income was Rs. 5,300, chiefly from octroi; and the expenditure was Rs. 5,700. An Anglo-vernacular middle school is maintained by the municipality.

Jammalamadugu Subdivision.—Subdivision of Cuddapah District, Madras, consisting of the JAMMALAMADUGU, PRODDATŪR, and PULIVENDLA *tāluks*.

Jammalamadugu Tāluk (*Jambulu-madugu*, 'the pool of rushes').—North-western *tāluk* of Cuddapah District, Madras, lying between 14° 37′ and 15° 5′ N. and 78° 4′ and 78° 30′ E., with an area of 616 square miles. The population in 1901 was 103,707, compared with 101,296 in 1891. The density is 168 persons per square mile, the District average being 148. The *tāluk* contains one town, JAMMALAMADUGU (population, 13,852), the head-quarters; and 129 villages. The demand for land revenue and cesses in 1903–4 amounted to Rs 2,72,000. The annual rainfall averages 22 inches, compared with 28 in the District as a whole, and is less than in any other *tāluk*.

Two small hill ranges run from east to west through the southern portion of Jammalamadugu, both of which are parts of the Erramalas (Errakondas) or 'red hills.' One of them divides the *tāluk* from Pulivendla; and the other, which lies parallel to it, reaches its highest point at the fine gorge where the Penner bends sharply to the north and flows by Gandikota to the town of Jammalamadugu. The Penner and Chitrāvati rivers join near Gandlūr on the west of the *tāluk*, and their united channel drains the greater portion of the country. In the precipitous gorge of Gandikota, the river is reduced to an average width of 200 yards; but in the level plain near the chief town it is at least three times as broad. Its waters are utilized to some slight extent for irrigation channels, but the manner in which the land rises from the river banks prevents any great use being made of them. Except the Penner basin, the whole of the *tāluk* may be included in the black cotton soil tract. The quality of the land varies considerably, being excellent in the north and west, but only mediocre in the south. The wide plains of black soil are almost entirely divided between the two crops of *cholam* and cotton. Indigo, gram, and oilseeds are also raised; but water is so scarce that rice and *rāgi* may be said to be confined to the immediate neighbourhood of the Penner and its channels. The *tāluk* has been liable from time to time to inundations. In 1851 the village of Chautapalle, at the confluence of the Penner and

the Chitrāvati, was totally destroyed by flood. Enormous freshes came down both rivers simultaneously and carried away the whole place, drowning about 500 of its inhabitants. On the morning of September 12, 1902, a sudden deluge of rain swept away two spans of the railway bridge near the Mangapatnam railway station, with the result that the mail train was precipitated into the gap and seventy-one lives were lost. The KURNOOL-CUDDAPAH CANAL touches the north-east corner of the *tāluk*.

Jammalamadugu Town.—Head-quarters of the subdivision and *tāluk* of the same name in Cuddapah District, Madras, situated in 14° 51′ N. and 78° 14′ E., on the left bank of the Penner river. Population (1901), 13,852. It is a busy centre of trade, with large exports of indigo and cotton. Cloths are also manufactured on hand-looms. The car-festival of Narapuraswāmi, held in May, continues for ten days and is attended by many people from surrounding villages. The place is a station of the London Missionary Society, which possesses a fine hospital, and also of the Society for the Propagation of the Gospel.

Jammu Province.—Province in Kashmīr State. *See* KASHMĪR AND JAMMU STATE.

Jammu Town.—Capital of the Jammu province, Kashmīr State, and the winter head-quarters of the Mahārājā, situated in 32° 44′ N. and 74° 55′ E., at an elevation of 1,200 feet above sea-level. Population (1901), 36,130. It lies high on the right bank of the river Tāwi, which flows in a narrow ravine to join the Chenāb. The town covers a space of about one square mile, densely packed with single-storeyed houses of round stones and mud with flat tops. In the upper portion are superior houses of brick, and in the Mandi stand the State offices and the palaces of the Mahārājā and his brother. The general effect of Jammu is striking; and from a distance the whitewashed temples, with their gilded pinnacles, suggest a splendour which is dispelled on nearer acquaintance. The most conspicuous of the temples is Raghunāthji, but like all the other buildings in Jammu it is common-place. The Dogrās have little taste in architecture, and are essentially economical and practical in their ideas of domestic comfort.

The railway, which runs to Siālkot, a distance of about 27 miles, starts from the left bank of the Tāwi. The river is spanned by a fine suspension bridge, and a good cart-road runs from the bridge as far as the Mandi. The other streets are narrow and irregular, and there is nothing of striking interest. Of late years the construction of water-works, the opening of the cart-road to the Mandi, the suspension bridge over the Tāwi, and the railway extension from Siālkot have improved the conditions of life in Jammu: but there has been no marked response either in population or in prosperity.

In the palmy days of Rājā Ranjīt Deo, towards the latter part of the eighteenth century, it is stated that the population was 150,000. There is nothing in the geographical position of Jammu which makes for prosperity. It lies on the edge of the Mahārājā's territories, with an infertile hinterland. Rightly speaking, it should have been the emporium for Kashmīr commerce, but the construction of the Kohāla-Srīnagar cart-road has taken trade away from the Jammu-Banihāl route. At present there are hopes of the development of coal-mines to the north, which might bring prosperity to the Dogrā capital; and the railway projected from Jammu to Srīnagar would restore much business.

The town of Jammu was a considerable centre of industry in the time of the late Mahārājā of Kashmīr and Jammu, Ranbīr Singh; but now it is merely the residence of the ruling family and of the officials of the State. The governor (Hākim-i-Ala) of the province with his revenue office, the Chief Judge, the Sub-Judge and two magistrates of the first class, the Wazīr-i-Wazārat of the Jammu district, the Superintendent of police, Jammu province, the chief medical officer, and the heads of various departments all live in Jammu, together with the staff of their several offices. A large hall called the Ajaibghar was erected by the late Mahārājā for the accommodation of the present King-Emperor, when he visited Jammu as Prince of Wales in the year 1875. The Mandi Mubārak palaces and the palace of Rājā Sir Amar Singh, situated on the Rāmnagar hill, towards the north of the town, are the chief attractions. The Central jail has a daily average of 268 prisoners, and costs about Rs. 20,000 per annum. The State high school is located in a large building, and is doing fairly efficient work. It contains about 800 pupils. A college to be named after the Prince of Wales is shortly to be opened. A State hospital is maintained, costing annually Rs. 14,800. Great improvements have been made in the drainage system of the town, which is managed by a municipal committee, and more improvements in this respect are under contemplation.

Jāmnagar.—Native State and town in Kāthiāwār, Bombay. *See* NAVĀNAGAR.

Jāmner Tāluka.—*Tāluka* of East Khāndesh District, Bombay, lying between 20° 33′ and 20° 55′ N. and 75° 32′ and 76° 1′ E., with an area of 527 square miles. It contains two towns, JĀMNER (population, 6,457), the head-quarters, and SHENDURNI (6,423); and 155 villages. The population in 1901 was 91,739, compared with 87,230 in 1891. The average density, 174 persons per square mile, is above the District average. The demand for land revenue in 1903–4 was 2·4 lakhs, and for cesses Rs. 17,000. Most of the *tāluka* consists of a succession of rises and dips, with streams the banks of which are

fringed with *babūl* groves. In the north and south east low straggling hills covered with young teak rise out of the plain. There is a plentiful and constant supply of water. On the whole, the climate is healthy, but at the close of the rains fever and ague prevail. The chief streams are the Vāghur, with its tributaries the Kāg and Sur, the Harki and Sonij. Most of these streams rise in the Sātmāla hills. There are also 1,950 wells. Generally speaking, the soil is poor. There is black loam in the valleys, and on the plateaux a rich brownish mould called *kālī munjal*.

Jāmner Town.—Head-quarters of the *tāluka* of the same name in East Khāndesh District, Bombay, situated in 20° 49′ N. and 75° 47′ E., on the small river Kāg, 60 miles east-by-south of Dhulia. Population (1901), 6,457. Jāmner was a place of consequence in the times of the Peshwās. Its prosperity has recently shown signs of revival, owing to its rising cotton trade and ginning industry. The town has three cotton-ginning and pressing factories, a dispensary, and two schools, attended by nearly 200 boys.

Jāmnia.—*Bhūmiāt* in the BHOPĀWAR AGENCY, Central India.

Jamnotrī.—Temple in the State of Tehrī, United Provinces, situated in 31° 1′ N. and 78° 28′ E. It stands on the western flank of the great peak of Bandarpūnch (20,731 feet), at an elevation of about 10,800 feet above the sea and 4 miles below the glacier from which the Jumna issues. The temple is a small wooden structure, containing an image of the goddess Jumna. Close by are a number of hot springs from which water issues at a temperature of 194·7° F. Many pilgrims visit this sacred place every summer.

Jāmpur Tahsīl.—*Tahsīl* of Dera Ghāzi Khān District, Punjab, lying between 29° 16′ and 29° 46′ N. and 70° 4′ and 70° 43′ E., with an area of 895 square miles. It is bounded by the Indus on the east, and by independent territory on the west. The riverain lowlands are subject to inundation from the Indus, and are also irrigated by inundation canals and wells. The hilly portion of the *tahsīl* includes the Māri peak (5,385 feet above the sea). The rest of the *tahsīl* consists of a sandy tract, the cultivation of which depends on irrigation from the Kahā torrent and on the very precarious rainfall. The population in 1901 was 97,247, compared with 83,583 in 1891. It contains the towns of JĀMPUR (population, 5,928), the head-quarters, and DĀJAL (6,213); and 149 villages. HARRAND is a place of some historical interest. The land revenue and cesses in 1903–4 amounted to 1·5 lakhs.

Jāmpur Town.—Head-quarters of the Jāmpur *tahsīl* of Dera Ghāzi Khān District, Punjab, situated in 29° 39′ N. and 70° 39′ E., 32 miles south of Dera Ghāzi Khān town. Population (1901), 5,928. There is a considerable export of indigo to Multān and Sukkur, and a good deal of

lac turnery is carried on. The municipality was created in 1873. The income and expenditure during the ten years ending 1902–3 averaged Rs. 10,100 and Rs. 9,600 respectively. In 1903–4 the income was Rs. 11,500, chiefly from octroi; and the expenditure was Rs. 12,500. The town has an Anglo vernacular middle school, maintained by the municipality, and a dispensary.

Jāmrao Canal.—A large and important water channel in the Hyderābād and the Thar and Pārkar Districts of Sind, Bombay. The canal takes off from the Nāra river in the north-west corner of the Sanghar *tāluka* and joins the Nāra again in the extreme south of the Jamesābād *tāluka*, the total length of the area irrigated being about 130 miles with an average breadth of 10 miles. The natural features vary. The upper reaches of the canal pass through the sandy jungle-clad hills along the Nāra river, which give place to an alluvial plain, covered, where formerly liable to be flooded from the Nāra, with thick jungle of *kandi*, *babūl*, and wild caper bushes, and are succeeded by the wide open plains sparsely dotted with vegetation which are the characteristic feature of the country. The length of the Jāmrao Canal is 117 miles, and, including all its branches and distributaries, 588 miles. This canal has one large branch, called the West Branch, 63 miles in length, and about 408 miles of minor channels.

The canal was opened on November 24, 1899, and water for irrigation on a large scale was admitted in the following June. The cost of the work was about 84·6 lakhs and the gross revenue of 1903–4 amounted to 6⅔ lakhs, which gives a net revenue of 4·3 lakhs or 5·1 per cent. on capital outlay to the end of the year. The area irrigated in 1903–4 was 451 square miles. Large areas were available for colonization in the centre of the tract adjoining the canal to which water had never before penetrated, and over which no rights had been previously acquired. To these lands, colonists have recently been drawn from the Punjab, Cutch, Jodhpur, Jaisalmer, Kohistān, and the Desert. The area so far allotted to colonists, on the model of the CHENĀB COLONY in the Punjab, amounted in 1904 to 116 square miles.

Jamrūd.—Fort and cantonment just beyond the border of Peshāwar District, North-West Frontier Province, situated in 34° 6′ N. and 71° 23′ E., at the mouth of the Khyber Pass, 10½ miles west of Peshāwar. Population (1901), 1,848. Jamrūd was first fortified in 1836 by Hari Singh, the Sikh governor of Peshāwar. It is now the head-quarters of the Khyber Rifles, and is the collecting station for the Khyber tolls, and contains a considerable *sarai*. A large mobilization camping-ground has been selected, 3 miles on the Peshāwar side of Jamrūd, and arrangements have been made for supplying water to it from the Bārā water-works. Jamrūd is connected with Peshāwar by a branch of the North-Western Railway.

Jāmtāra Subdivision.—South-western subdivision of the Santāl Parganas District, Bengal, lying between 23° 48′ and 24° 10′ N. and 86° 30′ and 87° 18′ E., with an area of 698 square miles. The subdivision, which is bounded on the south by the Barākar and is intersected by the Ajay river, is a rolling country, in places rocky and covered with jungle, and resembles in its general features the adjoining District of Mānbhūm. The population in 1901 was 189,799, compared with 173,726 in 1891, the density being 272 persons per square mile. It contains 1,073 villages, of which JĀMTĀRA is the head-quarters; but no town.

Jāmtāra Village.—Head-quarters of the subdivision of the same name in the Santāl Parganas District, Bengal, situated in 23° 58′ N. and 86° 50′ E. Population (1901), 278.

Jamu.—Province and town in Kashmīr State. *See* KASHMĪR AND JAMMU and JAMMU TOWN.

Jamūī Subdivision.—Southern subdivision of Monghyr District, Bengal, lying between 24° 22′ and 25° 7′ N. and 85° 49′ and 86° 37′ E., with an area of 1,276 square miles. The population in 1901 was 551,227, compared with 553,917 in 1891. At the time of the Census it comprised an area of 1,593 square miles, but the Sheikhpurā *thāna* was subsequently transferred to the Monghyr subdivision. The population of the subdivision as now constituted is 374,998. It contains 499 villages, of which JAMŪĪ is its head-quarters. The subdivision, which in the south merges in the Chotā Nāgpur plateau, contains large areas of jungle, and supports only 294 persons to the square mile, being the least densely populated part of the District. Jamūī is an important centre of trade. GIDHAUR and Khaira are the present seats of the two senior branches of the Gidhaur family.

Jamūī Village. Head-quarters of the subdivision of the same name in Monghyr District, Bengal, situated in 24° 55′ N. and 86° 13′ E., on the left bank of the river Kiul, 4 miles south-west of the Jamūī station on the East Indian Railway with which it is connected by a metalled road. Population (1901), 4,744. It contains the usual public offices, a *munsifi*, a sub-jail with accommodation for 51 prisoners, and a higher-class English school. *Mahuā* flowers (*Bassia latifolia*) and oil, *ghi*, shellac, oilseeds, grain, and *gur* are exported, and cotton, tobacco, piece-goods, and metal vessels are imported. Trade is carried on by rail and by pack-bullocks. To the south of the village are the remains of an old fort, known as Indpegarh.

Jamunā (1).—River of Eastern Bengal and Assam, probably representing one of the old channels of the TĪSTA. It rises in Dinājpur District, not far from the boundary of Rangpur (25° 38′ N. and 88° 54′ E.), and, flowing due south along the border of Bogra, finally falls into the Atrai, itself a tributary of the Ganges, near the village of Bhawānīpur

in Rājshāhi District (24° 38′ N. and 88° 57′ E.), after a total length of 89 miles. In the lower part of its course the Jamunā is navigated all the year round by country boats of considerable burden, but higher up it is navigable only during the rainy season. The chief river marts on the banks of the Jamunā are Phulbāri and Birāmpur in Dinājpur District, and HILLI in Bogra, just beyond the Dinājpur boundary.

Jamunā (2).—Deltaic distributary of the Ganges in Bengal, or rather the name given to a part of the waters of the Ichāmatī during a section of its course. The Jamunā enters the Twenty-four Parganas at Bāliāni from Jessore District; and after a south-easterly route through the Twenty-four Parganas and Nadiā Districts winds amid the forests and jungles of the Sundarbans, until it empties itself into the Raimangal, at a short distance from the point where the estuary debouches in the Bay of Bengal, in 21° 47′ N. and 89° 13′ E. The Jamunā is a deep river and navigable throughout the year by trading boats of the largest size, and its breadth varies from 150 to 300 or 400 yards. The Bhāngar line of the Calcutta and Eastern Canals strikes this river at Husainābād.

Jamunā (3) (or Janai).—Name given to the lower section of the BRAHMAPUTRA, in Eastern Bengal and Assam, from its entrance into Bengal in 25° 24′ N. and 89° 41′ E., to its confluence with the Ganges in 23° 50′ N. and 89° 45′ E. Its course is almost due south, extending approximately for a length of 121 miles. This channel is of comparatively recent formation. When Major Rennell compiled his map of Bengal towards the close of the eighteenth century, the main stream of the Brahmaputra flowed in a south-easterly direction across the District of Mymensingh, past the civil station of Nasīrābād, to join the Meghnā just below Bhairab Bāzār. Some thirty years later, at the time of Buchanan Hamilton's survey, this channel had already become of secondary importance; and at the present time, though it still bears the name of Brahmaputra, it has dwindled to a mere watercourse, navigable only during the rainy season. The Jamunā is now the main stream, and it extends from near Ghorāmāra in Rangpur District to the river mart of GOALUNDO in Farīdpur, situated at the junction with the main stream of the Ganges. Along the left or east bank stretches the District of Mymensingh, and on the right or west bank lie Rangpur, Bogra, and Pābna, all in the Rājshāhi Division. Although a modern creation, the Jamunā thus serves as an important administrative boundary. In the portion of its course which fringes Bogra District, it is locally known as the Daokobā or 'hatchet-cut,' perhaps to distinguish it from the Jamunā (1) in that District. It runs through a low-lying country, formed out of its own loose alluvial sands, which afford the most favourable

soil for jute cultivation. At some points its channel swells during the rainy season to a breadth of four or five miles, broken by frequent *chars* or sandbanks, which form, are washed away, and re-form year after year, according to the varying incidence of the current. The chief river mart on the Jamunā is SIRĀJGANJ in Pābna District. The Jamunā is navigable throughout its entire length, at all seasons of the year, by native craft of the largest burden, and also by the river steamers that ply to Assam.

Jandiāla.—Town in the Phillaur *tahsīl* of Jullundur District, Punjab, situated in 31° 34′ N. and 75° 37′ E. Population (1901), 6,620. It ceased to be a municipality in 1872.

Jandiāla Gurū.—Town in the District and *tahsīl* of Amritsar, Punjab, situated in 31° 34′ N. and 75° 2′ E., on the North-Western Railway, and on the grand trunk road, 11 miles east of Amritsar city. Population (1901), 7,750. The proprietary body are Jats, but there is a large mercantile community of Bhābras, who by religion are Jains. There is a considerable manufacture of blankets and brass vessels. The municipality was created in 1867. The income during the ten years ending 1902–3 averaged Rs. 8,200, and the expenditure Rs. 8,100. In 1903–4 the income was Rs. 8,400, chiefly derived from octroi; and the expenditure was Rs. 9,800. The town possesses an Anglo-vernacular middle school, maintained by the District board, and mission hospitals for men and women.

Jandola (*Jandula*).—A Bhittanni village on the right-hand bank of the Tānk Zām stream, on the borders of the Mahsūd territory in the Southern Wazīristān Political Agency, North-West Frontier Province, situated in 32° 20′ N. and 70° 9′ E. A fortified post close to the village is garrisoned by two companies of regulars and 25 cavalry, besides the Bhittanni levies.

Jangaon.—*Tāluk* in Adilābād District, Hyderābād State, situated midway between the Sirpur and Lakhsetipet *tāluks* and consisting of villages recently taken from those two *tāluks*. Its head-quarters are at Jangaon (population, 2,052).

Jangipur Subdivision.—Northern subdivision of Murshidābād District, Bengal, lying between 24° 19′ and 24° 52′ N. and 87° 49′ and 88° 21′ E., with an area of 509 square miles. The subdivision is divided into two parts by the Bhāgīrathi, the land to the west of that river being high and undulating, and that to the east a fertile alluvial tract liable to floods. The population in 1901 was 334,191, compared with 317,179 in 1891, the density being 657 persons per square mile. It contains one town, JANGIPUR (population, 10,921), its head quarters: and 1,093 villages.

Jangipur Town.—Head-quarters of the subdivision of the same name in Murshidābād District, Bengal, situated in 24° 28′ N. and

88° 4′ E., on the Bhāgīrathi. Population (1901), 10,921. The town, which is said to have been founded by the emperor Jahāngīr, was during the early years of British rule an important centre of the silk trade and the site of one of the Company's Commercial Residencies. There are still extensive filatures in the neighbourhood. Situated near the mouth of the Bhāgīrathi, it is the chief toll station for boats passing along that river. It was constituted a municipality in 1869. The income during the decade ending 1901–2 averaged Rs. 11,000, and the expenditure Rs. 10,000. In 1903–4 the income was Rs. 14,000, including Rs. 4,000 obtained from tolls and ferries, and Rs. 3,000 derived from a tax on persons (or property tax); and the expenditure was Rs. 13,000. The town with the courts and offices originally stood on the left bank of the Bhāgīrathi; but, owing to the shifting of the river, the subdivisional offices have been moved to its right bank, that portion of the town being known as Raghunāthganj. The sub-jail has accommodation for 26 prisoners.

Jānjgīr.—Eastern *tahsīl* of Bilāspur District, Central Provinces, lying between 21° 37′ and 22° 50′ N. and 82° 19′ and 83° 40′ E. In 1901 its area was 1,467 square miles, and the population was 285,236. On the formation of the new Drug District, the constitution of the *tahsil* was considerably altered. A tract lying south of the Mahānadī, containing the Bilaigarh, Katgī, and Bhatgaon *zamīndāris*, with the Sonākhān estate, and the Sarsewā group of villages, was transferred to the Balodā Bāzār *tahsīl* of Raipur District, while the three northern *zamīndāris* of Korbā, Chhurī, and Uprorā were transferred from the Bilāspur *tahsīl* to Jānjgīr. On the transfer of Sambalpur District to Bengal, the Chandarpur-Padampur and Mālkhurdā estates of that District were added to this *tahsīl*. The revised figures of area and population for the Jānjgīr *tahsīl* are 3,039 square miles and 418,209 persons. The population of this area in 1891 was 451,024. The density is 138 persons per square mile. The *tahsīl* contains 1,331 villages. The head-quarters are at Jānjgīr, a village of 2,257 inhabitants, adjoining Nailā station on the railway, 26 miles east of Bilāspur town. The *tahsīl* has only four square miles of Government forest. It includes the *zamīndāri* estates of Chāmpa, Korbā, Chhurī, and Uprorā, with a total area of 1,748 square miles, of which 746 are tree and scrub forest, and a population of 112,680 persons. The land revenue demand in 1902–3 on the area now constituting the *tahsīl* was approximately 1·42 lakhs. The old area of the *tahsīl* is almost wholly an open plain, covered with yellow clay soil and closely cropped with rice, while the northern *zamīndāris* consist principally of densely forested hills and plateaux.

Jānji.—River in Sibsāgar District, Eastern Bengal and Assam. *See* JHĀNZI.

Janjīra State (or *Habsān*, 'the African's land').—State within the Political Agency of Kolāba, in the Konkan, Bombay, lying between 18° and 18° 31′ N. and 72° 53′ and 73° 17′ E. The State is bounded on the north by the Kundalika or Roha creek in Kolāba District; on the east by the Roha and Māngaon *tālukas* of the same District; on the south by the Bānkot creek in Ratnāgiri District; and on the west by the Arabian Sea. About the middle of the coast-line, 40 miles long, the Rājpuri Gulf divides Janjīra into two main portions, northern and southern. The area is 324 square miles, excluding JĀFARĀBĀD in Kāthiāwār, which is also subject to the chief. The name Janjīra is a corruption of the Arabic *jazīra*, 'an island.'

Physical aspects.

The surface of the State of Janjīra is covered with spurs and hill ranges, averaging about 1,000 feet in height, and generally running parallel to the arms of the sea that penetrate eastwards into the interior. The sides of the hills are thickly wooded, except where cleared for cultivation. Inland from the coast rise ranges of wooded hills. Near the mouths of the creeks belts of palm groves from 1 to 2 miles broad fringe the shore. Behind the palm groves lie salt marshes and mangrove bushes; behind these again, the rice lands of the valleys. The wealthiest and largest villages, inhabited by skilful gardeners, well-to-do fishermen, and palm-tappers, nestle in the palm-belt along the coast. Inland, the banks of the creeks are studded with hamlets, occupied by husbandmen who cultivate rice. On the hill-sides, in glens or on terraces, are the huts and scanty clearings of Kāthkaris and other hillmen. The slopes of the lower hills are generally rounded and passable by a pony. These slopes, except in the rains, are bare; but at most times, and particularly at high tide, the Rājpuri creek affords fine views of wooded hill and winding water. In former times travel was nearly impossible during the rains; but since the accession of the present Nawāb in 1883, roads have been constructed affording considerable facilities for travel even in the rainy season. On the coast the sand-bars at the mouth of every inlet but the Rājpuri creek prevent ingress. Farther inland, the low rice lands become covered with deposited mud, the main streams are flooded too deeply to be forded, and overgrown forest tracts render difficult the passage from one hill range to another. None of the streams is more than 5 or 6 miles in length. The larger watercourses flow westward. During the rains they are torrents, but dwindle to mere rills at other seasons. The chief creeks and backwaters are, beginning from the north: the Māndla-Borlai, Nāndgaon, Murud, Rājpuri, Panchaitan or Dive-Borlai, and Srivardhan. Most of the creek entrances are rocky and dangerous. During the navigable season, September to June, they can be entered only by boats of under $1\frac{1}{2}$ tons burden.

Once over the bar, the creeks are mostly of uniform depth throughout their course. The mouth of the Rājpuri creek is 45 miles south of Bombay. The creek ends at the old town of Mhasla, 14 miles south-east of Janjīra town. At springs the tide rises 12 feet in the creek. There is no bar. The bottom is muddy. The least depth at low tide is 3½ fathoms at the entrance of the creek, and 4½ fathoms inside the entrance in the mid-channel. Steamers can enter, even during the rains, and lie in still water to the south of Janjīra island.

The rock is almost all trap, with, on the higher hill slopes, laterite or ironstone in large boulders. The hills are well wooded, teak being plentiful in the north. Tigers, leopards, hog, and wild cats are found in some parts. Venomous snakes are numerous.

The climate is moist and relaxing, but not unhealthy. The sea-breeze cools the coast and hill-tops. Along the coast, fever and dysentery prevail from October to January. The heat on the coast ranges from 63° to 85° in January, from 70° to 94° in May, from 79° to 85° in July, and from 69° to 84° in November. Inland, where the sea-breeze does not penetrate, the thermometer ranges 7° or 8° higher. The annual rainfall averages 107 inches.

History.

The origin of the ruling family is thus related. About the year 1489 an Abyssinian in the service of one of the Nizām Shāhi kings of Ahmadnagar, disguised as a merchant, obtained permission from Rām Pātel, the Kolī captain, to land 300 boxes. Each of these boxes contained a soldier, and by this means the Abyssinians possessed themselves of Janjīra island and the fort of Danda Rājpuri. The island afterwards formed part of the dominions of the king of Bijāpur. In the time of Sivajī the government of the Southern Konkan was held by the admiral of the Bijāpur fleet, who was always an Abyssinian. In consequence of the inability of his master to succour him when attacked by Sivajī, the Sīdī admiral offered his services, in 1670, to the Mughal emperor Aurangzeb. The most noticeable point in the history of Janjīra is its successful resistance alone of all the States of Western India to the determined attacks of the Marāthās, who made its capture a point of honour. After repeated attacks by Sivajī, its conquest was again attempted in 1682 by his son Sambhājī, who besieged the island, which he attempted to connect with the mainland by means of a mole. The project failed, and other attempted modes of attack were defeated with heavy loss. In 1733 the combined efforts of the Peshwā and Angria made little impression on Janjīra. The British, on succeeding the Marāthās as masters of the Konkan, refrained from interfering in the internal administration of the State.

The chief is a Sunnī Muhammadan, by race a Sīdī or Abyssinian,

with the title of Nawāb. He has a *sanad* guaranteeing succession according to Muhammadan law, and pays no tribute. As regards succession, the family does not necessarily follow the rule of primogeniture. Till 1868 the State enjoyed singular independence, there being no Political Agent, and no interference whatever in its internal affairs. About that year the maladministration of the chief, especially in matters of police and criminal justice, became flagrant; those branches of administration were in consequence taken out of his hands and vested in a Political Agent. The treaty which regulates the dealings of the British Government with the State is that of 1870. The Nawāb of Janjīra is entitled to a salute of 11 guns.

Population.

The population (exclusive of Jāfarābād) at the last four enumerations was: (1872) 71,996, (1881) 76,361, (1891) 81,780, and (1901) 85,414. There are two towns, Murud (population, 3,553) and SRĪVARDHAN (5,961); and 284[1] villages. The density is 264 persons per square mile. About 82 per cent. are Hindus and 17 per cent. Musalmāns. The castes of numerical importance are Agris (9,617), Kolis (7,326), Kunbīs (15,670), and Mahārs (7,242). Brāhmans (1,524) and Prabhus (1,771) constitute the higher castes. The Musalmāns are chiefly Shaikhs (13,552), only 240 having returned themselves as Sīdis in 1901. An interesting though numerically unimportant community are the Bani-Israil (566), who are a race of Jewish descent, worship one God, and have no images in their houses. They practise many Jewish rites. The dress and manner of living of the Bani Israil, who are mostly oil-pressers by trade, are partly Muhammadan and partly Hindu. They speak Marāthi. Though fond of drink, they are steady, enterprising, and prosperous. The Sīdis are the representatives of Habshi or Abyssinian slaves and soldiers of fortune, and are only found in the island of Janjīra. Many of them are related to the Nawab and inherit State grants and allowances. The term Sidī is considered to be a corruption of Saiyid. The crews of the Bombay Harbour boats, the steamships of the Peninsular and Oriental Company, and the smaller coasting steamers, are to a great extent recruited from Janjira.

Agriculture.

Except the plots of rich alluvial rice land in the valleys and some sandy tracts near the coast, the usual red stony soil of the Konkan prevails throughout Janjīra. Of the whole area, 42 square miles or 13 per cent are arable, of which 41 square miles were cultivated in 1903-4. The principal crops are rice ($38\frac{1}{2}$ square miles), betel-nuts, and coco-nuts. Srīvardhan betel-nuts are known throughout the Bombay Presidency. In the strip of light sand bordering the coast coco-nut palms grow in great

[1] The Census of 1901 showed 234 villages. The present figure is based upon more recent information.

perfection. For irrigation purposes, water sufficiently fresh is found everywhere by digging a few feet into the easily worked earth. It is drawn from wells by means of the Persian wheel, and from streams by a balance lift called *ukti*. In 1878 the British system of forest preservation was adopted. The forests are now strictly protected, and in 1903-4 yielded Rs. 40,700. Quarries of trap and laterite are occasionally worked. Small pearls are found in oysters fished up from the Rājpuri creek. The oyster is believed to be the *Placuna placenta*. Judging from the quantities of shells thrown up along the banks of the Rājpuri creek, the beds must be considerable.

Trade and communications.

Next to agriculture, which supports 70 per cent. of the total population, sea-fishing is the occupation of most of the people. The manufactures include the weaving of *sāris*, coarse cloth, turbans, and the making of coir rope, metal-work, furniture, stone-ware, and native shoes of an inferior kind. The chief articles of import are grain (Rs. 60,000), cotton and woollen stuffs (Rs. 70,000), sugar and molasses (Rs. 56,000), salt (Rs. 10,000), *ghī* and oil (Rs. 77,000); the total value of imports being 4·3 lakhs. The export trade amounts to more than 3 lakhs, the chief articles being firewood (Rs. 83,000), supplied to Bombay, and betel-nuts and coco-nuts (Rs. 63,000). External traffic is carried on almost entirely by water. In March, 1874, a regular steam communication was established between Bombay and Dāsgaon on the Sāvitri river, touching at Janjīra and Srīvardhan. There are twelve ferries in the State. A ferry steamer plies between Bombay and Dharamtar. The chief made roads are from Murud to Borlai, 14 miles in length, and from Dighi to Srīvardhan, 19 miles. A State post formerly worked between Alībāg and Bānkot, but was abolished in 1880 when the British post office extended.

Famine.

Since 1872, when the crops partially failed, the State has suffered from bad seasons in 1875, 1878, 1879, and 1881. In 1899-1900 the crops in several villages failed on account of the scanty rainfall, and relief works were undertaken.

Administration.

The administration of the State is in the hands of the *Kārbhāri*, under the orders of the Nawāb and subject to the supervision of the Political Agent. There are ten criminal courts (excluding three in the Jāfarābād dependency), with subordinate magisterial powers, and three civil courts in the State, two of which exercise appellate powers. The three civil courts are those of the Munsif, the Sar Nyāyādhish, and the Sadr Court. The Munsif disposes of suits up to the value of Rs. 5,000. The Sar Nyāyādhish hears suits of greater value, exercises Small Cause Court powers up to a limit of Rs. 50, and also has appellate powers. The Sadr Court, which is presided over by the Nawāb himself, exercises the powers of a High

Court. The *Kārbhāri* has the powers of a Sessions Judge and District Magistrate.

The revenue of the State exceeds $5\frac{1}{2}$ lakhs (inclusive of about Rs. 65,000 from Jāfarābād in Kāthiāwār), and is chiefly derived from land ($2\frac{1}{2}$ lakhs), forests (Rs. 41,000), excise (Rs. 70,000), and salt and customs (Rs. 50,000). The expenditure is 5 lakhs (inclusive of Rs. 41,000 in Jāfarābād), of which one lakh is brought to account as Darbār expenses and Rs. 50,000 as *inām* and charities or religious grants. Salt is purchased from the British Government, the annual sale of which amounts to 9,000 maunds. Opium is also purchased from the British Government. The excise system is the same as in the Alībāg *tāluka* of Kolāba District. Of the total excise revenue, the tree taxes yield Rs. 34,000 and the toddy spirit fee Rs. 20,000. Till it was closed in 1834, the Nawāb's mint issued silver and copper coins. British coinage has now taken the place of the old currency. The total number of villages (including towns) is 286, of which 263 are unalienated and 23 alienated. The chief district revenue officer is in charge of the three fiscal divisions or *mahāls* of Srīvardhan, Murud, and Mhasla. The survey settlement was introduced in 1898–9. The new rates have enhanced the assessment from 1·81 to 1·86 lakhs. The present rates for rice land vary from Rs. 6–7 to Rs. 9–9 per acre; for garden land from Rs. 6–10 to Rs. 15–11; and for *varkas* land from 3 to 4 annas.

There are two municipalities, besides that at Jāfarābād, one at Murud and the other at SRĪVARDHAN, with an income in 1903–4 of Rs. 3,600 and Rs. 3,200 respectively. Local funds yield Rs. 15,000, consisting of a cess of one anna on each rupee of land revenue and of part of the income from cattle pounds. Exclusive of 13 irregulars in Jāfarābād, the military force consists of 30 infantry, 14 gunners, and 188 irregulars, in all 232. The total strength of the permanent police is 137, exclusive of 28 in Jāfarābād. The daily average number of prisoners in the State jail in 1903–4 was 11. There are also 3 lock-ups. Janjīra proper has (1903–4) 69 schools, including one English school with 130 pupils. The number of pupils attending these schools was 2,862, of whom 428 were girls. A hospital and 4 dispensaries treat about 30,000 persons annually. Jāfarābād contains 2 dispensaries, which treated 6,000 persons in 1903–4. Nearly 3,000 persons, or 36 per 1,000 of the population, are vaccinated annually.

Janjīra Village.—Capital of the State of Janjīra, Bombay, situated in 18° 18′ N. and 73° E., 44 miles south of Bombay Island. Population (1901), 1,620. The fort of Janjīra, on an island at the entrance of the Rājpuri creek, lies half a mile from the mainland on the east, and a mile from the mainland on the west. Its walls rise abruptly from the water to a height of 50 feet, with battlements and loopholes.

In the bastions and on the walls are ten guns. In the fort a Muhammadan fair is held in November, attended by about 3,000 visitors. On Nānwell headland, about 2 miles west of the fort, a lighthouse shows a dioptric light of order 4, about 150 feet above sea-level. It serves to light the dangerous sunken reef known as the Chor Kāssa, situated about three-quarters of a mile from the headland.

Jānsath Tahsīl.—South-eastern *tahsīl* of Muzaffarnagar District, United Provinces, lying between 29° 10′ and 29° 36′ N. and 77° 36′ and 78° 6′ E., with an area of 451 square miles. The population increased from 193,533 in 1891 to 216,411 in 1901. The *tahsīl* contains four towns: namely, KHATAULĪ (population, 8,695), MĪRĀNPUR (7,209), JĀNSATH (6,507), the *tahsīl* head-quarters, and BHŪKARHERĪ (6,316); and 244 villages. In 1903-4 the demand for land revenue was Rs. 3,60,000, and for cesses Rs. 47,000. The Ganges bounds the *tahsīl* on the east, and the low land on the bank of the river is swampy; but the greater part lies on the upland and is protected by the Upper Ganges Main Canal and the Anūpshahr branch. In 1903-4 the area under cultivation was 307 square miles, of which 115 were irrigated.

Jānsath Town.—Head-quarters of the *tahsīl* of the same name in Muzaffarnagar District, United Provinces, situated in 29° 19′ N. and 77° 51′ E., 14 miles from Muzaffarnagar town. Population (1901), 6,507. The town is famous as the home of the Jānsath Saiyids, who held the chief power in the Delhi empire during the early part of the eighteenth century. Jānsath was sacked and destroyed by a Rohilla force, under the orders of the Wazīr Kamar-ud dīn, in 1737, and many Saiyids were slain or exiled; but some of their descendants still live in the town. Jānsath is administered under Act XX of 1856, with an income of about Rs. 2,000. It contains a *tahsīli*, an Anglo-vernacular school opened by private subscription, and a dispensary. Much has been done lately to improve the place by paving the streets and the drains.

Janwādā.—*Tāluk* of Bīdar District, Hyderābād State. *See* KĀRĀMUNGI TĀLUK.

Jaorā State.—A treaty State, situated in the Mālwā Agency of Central India, with an area of 568 square miles, of which 128 have been alienated in land grants. The territories of the State are much split up, the main portion lying between 23° 30′ and 23° 55′ N. and 75° 0′ and 75° 30′ E. It is bounded by portions of the Indore, Gwalior, and Ratlām States of the Agency, the State of Partābgarh in Rājputāna, and the Thakurāt of Piplodā. It takes its name from Jaorā town, at which the head-quarters are situated. The whole State lies on the Mālwā highlands, and shares in the general conditions common to that region. There are only two rivers of importance, the Chambal and Siprā.

Ghafūr Khān was an Afghān of the Tājik Khel, from Swāt. His grandfather, Abdul Majīd Khān, originally came to India in hopes of making a fortune; and his two sons Abdul Hamīd and Abdur Rās entered the service of Ghulām Kādir Khān, notorious for having blinded the aged emperor Shāh Alam in 1788. On the execution of Ghulām Kādir by Sindhia they settled in Rohilkhand. Ghafūr Khān was the fourth and youngest son of Abdul Hamīd. He married a daughter of Muhammad Ayāz Khān, who held a high post at the Jodhpur court. Ayāz Khān assisted the freebooter Amīr Khān in settling the dispute between the chiefs of Jaipur and Jodhpur regarding the hand of the Udaipur princess Krishna Kunwari; and the friendship thus started led Ayāz to give his younger daughter to Amīr Khān, who then took Ghafūr Khān into his service, and employed him as his confidential agent and representative at the court of Holkar, when absent on distant expeditions. After the battle of Mehidpur (Dec. 21, 1817), Holkar was forced to make terms, and signed the Treaty of Mandasor (*see* INDORE STATE), by the twelfth article of which it was agreed that Nawāb Ghafūr Khān should be confirmed in possession of Sanjīt, Malhārgarh, Tāl, Jaorā, and Barauda, and draw tribute from Piplodā. The Nawāb was at the same time required to furnish a quota of 500 horse and 500 foot and four guns for the assistance of the British Government, an obligation which was later on commuted for a cash payment. Amīr Khān protested against this clause, on the ground that Ghafūr Khān was holding the districts as his agent; but the claim was not admitted.

In 1821 certain agreements were mediated between the Nawāb and the Malhārgarh Thākurs. The Malhārgarh Thākurs claimed to be tributary *jāgīrdārs*, but it was held that they were merely guaranteed leaseholders, the tenure depending on the due observance of the terms of their holding; until 1890 they were a constant source of trouble to the Darbār.

In 1825 Ghafūr Khān died, leaving an infant son, Ghaus Muhammad Khān (1825-65). He was placed on the *masnad*, *nazarāna* (succession dues) of 2 lakhs being paid to Holkar. The management of the State was left to the late Nawāb's widow, but after two years she was removed from the control for mismanagement. In 1842 Ghaus Muhammad Khān received administrative powers. In the same year a money payment of 1·6 lakhs was accepted in lieu of the troops required to be kept up under the treaty, and in return for good services during the Mutiny this was further reduced to 1·4 lakhs in 1859. Three years later a *sanad* was granted guaranteeing succession in accordance with Muhammadan law. Ghaus Muhammad died in 1865, leaving a son of eleven years of age, Muhammad Ismail Khān (1865-95), who was duly installed, the usual *nazarāna* of 2 lakhs being paid to Holkar. The Nawāb was placed in

charge of the State in 1874, but his administration was not a success. He incurred a debt of about 16 lakhs, and, in addition, borrowed 3 lakhs from Government. Muhammad Ismail died in 1895 and was succeeded by his son Iftikhār Alī Khān, the present chief, then a boy of twelve, the management of the State being entrusted to the Nawāb's uncle, Yār Muhammad Khān, until 1906, when the chief received powers of administration. The young chief was educated at the Daly College at Indore, and in 1902 he joined the Imperial Cadet Corps. The present ruler bears the titles of His Highness and *Fakhr-ud-daula* Nawāb *Saulat Jang*, the second and last dignities being personal, and is entitled to a salute of 13 guns.

The population of the State was: (1881) 108,834, (1891) 117,650, and (1901) 84,202. In the latest year Hindus numbered 62,405, or 74 per cent. of the total; Musalmāns, 15,854, or 19 per cent.; Jains, 3,314, or 4 per cent.; and Animists, 2,585, or 3 per cent. (mostly Bhīls and Sondhiās). Of the Muhammadan population, 73 per cent. live in Jaorā town. The density of population is 148 persons per square mile, that for all Mālwā being only 116. There are two towns, Jaorā (population, 23,854), the capital, and Tāl (4,954); and 337 villages. The population rose in the period ending 1891 by 8 per cent., but fell during the last decade by 29 per cent., chiefly on account of the famine of 1899–1900. The Rāngrī or Mālwī dialect of Rājasthānī is spoken by 70 per cent. Besides the animistic tribes mentioned, the most numerous castes among Hindus are: Rājputs, 7,200; Chamārs, 5,500; Kunbīs, 5,000; and Bālais, 3,700. About 38 per cent. of the population are supported by agriculture, and 12 per cent. by general labour.

The soil of the State is among the richest in Mālwā, being mainly of the best black cotton variety, bearing excellent crops of poppy. Of the total area of 568 square miles, 274, or 48 per cent., are under cultivation, of which 24 square miles are irrigated. Of the uncultivated area, 94 square miles, or 17 per cent. of the total area, are capable of cultivation, the rest being waste. Of the cropped area, *jowār* and cotton each occupy 49 square miles, or 16 per cent.; maize, 37 square miles, or 12 per cent.; poppy, 18 square miles, or 6 per cent.; and wheat, 10 square miles, or 3 per cent.

The chief means of communication are the Nīmach-Mhow high road and the Jaorā-Piplodā road, both metalled and kept up by Government; and the Rājputāna-Mālwā Railway and the Ratlām-Godhra-Baroda branch of the Bombay, Baroda, and Central India Railway, which joins the Rājputāna-Mālwā at Ratlām, and forms the shortest route to Bombay.

For administrative purposes the State is divided into seven *tahsīls* (or districts)—Jaorā, Barauda, Barkhera, Malhārgarh, Nawābganj, Saujīt, and Tāl Mandāwal—each under a *tahsīldār*, who is collector of revenue and magistrate of the district.

The chief is the final authority in all general administrative and civil judicial matters. In criminal cases, however, he is required to submit all cases involving the penalty of death for confirmation by the Agent to the Governor-General. The judicial system was organized in 1885 on the model of British courts, and the punishments laid down in the British codes were introduced in place of the primitive pains and penalties which were then in force.

No revenue survey has as yet been made, and crops are appraised on the ground before the harvest. The incidence of land revenue demand is Rs. 3 per acre of cultivated land, and Rs. 1-8 per acre on the total area. Collections are made in cash, in three instalments.

The total revenue of the State amounts to 8·5 lakhs, of which 5·8 lakhs, or 68 per cent., is derived from land; Rs. 29,000, or 3 per cent., from opium; Rs. 25,000, or 3 per cent., from customs; and Rs. 14,000 from tribute. The chief heads of expenditure are: general administration, 1·2 lakhs; chief's establishment, Rs. 30,000; charges in respect of collection of land revenue, Rs. 62,600; police, Rs. 35,000; military, Rs. 34,000; public works, Rs. 31,000; tribute, Rs. 1,37,000.

A duty of Rs. 7 per maund is levied on raw opium, and of Rs. 2 on every 10 lb. of the manufactured article. Dues are also levied on every chest of 140 lb.: namely, on Jaorā grown opium, Rs. 30; on foreign opium, Rs. 13 when it comes from a distance of 50 miles or less, and Rs. 9 when it comes from more than 50 miles. About 1,000 chests pass annually through the Government scales maintained in Jaorā town, at which the British Government levies an export duty on all opium passing through British India to the Chinese market. This duty amounts to about 5 lakhs a year.

Since 1895 the British rupee has been legal tender.

The State maintains 59 regular cavalry, 124 infantry, and 48 artillery with 16 guns, besides 36 irregulars. The police force was organized in 1892, and now includes 370 regular police and 332 rural police, giving 1 man to every 126 persons. A Central Jail is maintained at Jaorā town.

An English school was started in 1866. In 1896 the Barr High School, teaching up to the University entrance standard, was opened. There are now ten other State schools, as well as several private institutions, which are supported by grants-in-aid. The cost of education is Rs. 5,000 a year.

Two hospitals are maintained in Jaorā town, one for men and one for women, and five dispensaries in the districts.

Jaorā Town.— Capital of the State of the same name in Central India, situated in 23° 38′ N. and 75° 8′ E., about 1,600 feet above the level of the sea, with an area of 2½ square miles. Jaorā is on the Ajmer-Khandwā branch of the Rājputāna-Mālwā Railway, 432 miles

from Bombay. The village of Jaorā belonged originally to the Khatki Rājputs, but was taken by Ghafūr Khān as the site of his chief town. It is divided into twenty-six quarters, containing bazars for the sale of different articles. The public buildings include two hospitals, one for males and one for females, a guesthouse, a high school and two smaller educational institutions, a jail, a post and telegraph office, and several *sarais*. Population has increased regularly: (1881) 19,902, (1891) 21,844, (1901) 23,854. Hindus form 43 per cent. and Musalmāns 48 per cent. of the total. The town is watched by a police force of 41 constables.

Jāpvo.—The highest mountain in Assam (9,890 feet), situated in 25° 36′ N. and 94° 4′ E., in the ASSAM RANGE a little to the south of Kohīmā (Nāgā Hills District).

Jasdan State.—State in the Kāthiāwār Political Agency, Bombay, lying between 21° 56′ and 22° 17′ N. and between 71° 8′ and 71° 35′ E., with an area of 283 square miles. The population in 1901 was 25,727, residing in 56 villages. The revenue in 1903–4 was Rs. 1,23,000. and 151 square miles were cultivated, of which 19 square miles were irrigated. Jasdan ranks as a third-class State in Kāthiāwār. Jasdan town may derive its name from Swāmi Chashtana, one of the very earliest of the Kshatrapa dynasty. During the rule of the Ghorīs of Junāgarh, a strong fort was built there, and the town was called Ghorīgarh. Later on it fell into the hands of the Khumāns of Kherdi and was conquered from Jasa Khumān about 1665 by Vika Khāchar, the grandson of Lakha Khāchar, the founder of the Lakhani branch of Khāchars. In the time of Vajsur Khāchar, who was a powerful chief and established a *pāl* or claim to blackmail over the surrounding country as far as Dhandhuka and Cambay, it was taken by Bhaunagar. Subsequently Jasdan was seized by the Jām of Navānagar, but he restored it to Vajsur Khāchar on the occasion of the marriage of Jām Jasajī. Vajsur Khāchar came to terms with the British and the Gaikwār in 1807–8. The State is now ruled by this family with the title of chief. They follow the rule of primogeniture.

Jasdan Town.—Chief town of the State of the same name in Kathiāwār, Bombay, situated in 22° 5′ N. and 71° 20′ E., about 4 miles north-east of Atkot, and 6 miles north of Kotra Pitha, both of which are on the Rājkot-Bhaunagar high road. Population (1901), 4,628. Jasdan is a town of great antiquity, and possibly derives its name from Swāmi Chashtana, the second ruler of the Kshatrapa dynasty. During the rule of the Ghorīs of Junāgarh a strong fort was built here, and the town was called Ghorigarh. A good road connects it with Vinchia. An agricultural bank has recently been opened in Jasdan for the benefit of the cultivating classes.

Jashpur.—Tributary State in the Central Provinces, lying between

22° 17′ and 23° 15′ N. and 83° 30′ and 84° 24′ E., with an area of 1,948[1] square miles. Till 1905 it was included in the Chotā Nāgpur States of Bengal. It is bounded on the north and west by the Surgujā State; on the east by the Rānchī District of Bengal; and on the south by Gāngpur, Udaipur, and Raigarh. Jashpur consists in almost equal proportions of highland and lowland. On the Rānchī side the magnificent table-land of UPARGHĀT attains an average elevation of 2,200 feet above the sea, and is fringed by hills which in places rise 1,000 feet higher. On the east the Uparghāt blends with the plateau of Chotā Nāgpur proper; while on the west it springs from the lowland region known as the Hetghāt in a scarped fortress like wall, buttressed here and there by projecting masses of rock. The Upargħāt again is divided by a slight depression from the still loftier plateau of KHURIĀ, which occupies the north-western corner of the State, forming the watershed between the Ib and the Kanhar, a tributary of the river Son. This plateau consists of trap-rock topped with volcanic laterite, overlying the granite and gneiss which form the surface rocks at lower elevations. The lowlands of the Hetghāt and of Jashpur proper lie in successive steps descending towards the south, broken by ranges of low hills, isolated bluffs, and bare masses of gneiss and other metamorphic rocks. The granite of this low region frequently rises into bare round knolls, the most conspicuous of which is called the Burha from its fancied resemblance to an old man's bald head. The principal peaks are RĀNĪJULA (3,527 feet), KOTWAR (3,393 feet), and BHARAMURIO (3,390 feet). The chief river is the Ib, which flows through the State from north to south. Several waterfalls are found along its course, the finest being formed by the rush of its waters over a square mass of trap-rock, where it passes from the high table-land of the Upargħāt into the flat country of Jashpur proper. Owing to numerous rapids, the river is not navigable below these falls The smaller rivers of Jashpur are mere hill streams, all of which are fordable except at brief intervals during the rains In the north these are feeders of the Kanhar, and flow towards the valley of the Ganges, while on the south they run into the Ib and contribute to the river system of Orissa. Gold is obtained in small quantities from the banks and bed of the Ib river, near the Gāngpur border, by the Jhorā Gonds, who wash the soil; they make over the gold to the Rājā and are paid by him in rice. Iron is procured in a nodular form in the hilly tracts, and is smelted by aboriginal tribes for export. The forests consist largely of *sāl* (*Shorea robusta*), *sissū* (*Dalbergia Sissoo*), and ebony (*Diospyros melanoxylon*); but owing to their distance from the railway there is as yet little demand for the timber. Those near the Gāngpur border have recently,

[1] This figure, which differs from the area shown in the *Census Report* of 1901, was supplied by the Surveyor-General.

however, been leased to a contractor. Besides timber, the chief jungle products are lac, *tasar* silk, and beeswax, all of which are exported, *sabai* grass (*Ischaemum angustifolium*), and a large number of edible roots and indigenous drugs. The jungles contain tigers, leopards, wolves, bears, buffaloes, bison, and many kinds of deer.

The State of Jashpur was ceded to the British Government by the provisional agreement concluded with Mudhojī Bhonsla in 1818. Although noticed in the second article of this agreement as a separate State, Jashpur was at first treated in some measure as a fief of Surgujā, and the tribute, the amount of which was last fixed in 1899 at Rs. 1,250, is still paid through that State. The chief, however, is not bound to render any feudal service to Surgujā. The population increased from 113,636 in 1891 to 132,114 in 1901. They dwell in 566 villages, and the density is 68 persons per square mile. The large increase is due chiefly to the inducements held out to immigrants to settle in the State, where the area of cultivable waste is very large. The people have also benefited by the introduction of sugar-cane and wheat cultivation, and roads have been constructed from the capital to the borders of Rānchī, Surgujā, Udaipur, and Gāngpur. The most numerous castes and tribes are Oraons (47,000), Rautias (12,000), Korwās (10,000), Ahīrs or Goālās and Nagesias (9,000 each), and Chiks and Kaurs (7,000 each). A rebellion of the Korwās gave considerable trouble some years ago. Pāndrapāt and the table-lands of the Khuriā plateau afford excellent pasturage; and Ahīrs or cowherds from Mirzāpur and elsewhere bring large herds of cattle to graze, the fees paid by them being a considerable source of income to the State. Many Ahīrs have settled permanently in Khuriā. The trade is confined to food-grains, oilseeds, and jungle products, and is carried on by means of pack-bullocks.

The relations of the chief with the British Government are regulated by a *sanad* granted in 1899, and reissued in 1905 with a few verbal changes due to the transfer of the State to the Central Provinces. Under this *sanad* the chief was formally recognized and permitted to administer his territory subject to prescribed conditions, and the tribute was fixed for a further period of twenty years, at the end of which it is liable to revision. The chief is under the general control of the Commissioner of Chhattīsgarh as regards all important matters of administration, including the settlement and collection of land revenue, the imposition of taxes, the administration of justice, arrangements connected with excise, salt, and opium, and disputes in which other States are concerned; and he cannot levy import and export dues or transit duties, unless they are specially authorized by the Chief Commissioner. He is permitted to levy rents and certain other customary dues from his subjects, and is empowered to pass sentences

of imprisonment up to five years and of fine to the extent of Rs. 200; but sentences of imprisonment for more than two years and of fine exceeding Rs. 50 require the confirmation of the Commissioner. Heinous offences calling for heavier punishment are dealt with by the Political Agent, Chhattīsgarh Feudatories, who exercises the powers of a District Magistrate and Assistant Sessions Judge; the Commissioner occupies the position of a Sessions Court in respect of such cases, while the functions of a High Court are vested in the Chief Commissioner.

The revenue of the State from all sources in 1904–5 was Rs. 1,26,000, of which Rs. 50,000 was derived from land, Rs. 11,000 from excise, and Rs. 7,000 from forest. The expenditure in the same year was Rs. 1,05,000, including Rs. 22,000 spent on administration, Rs. 35,000 on domestic charges, and Rs. 6,000 on public works. The State maintains 199 miles of roads. The current revenue demand is Rs. 60,000 per annum, collected through lease-holders, called *thekadārs*, with whom the villages are settled. The latter fix and collect the assessment payable by each cultivator in the village, and the amount is not changed during the term of the settlement. The *thekadārs* have no rights beyond that period; but the lease is generally renewed with the old *thekadār*, and a son generally succeeds his father, though no hereditary rights are recognized. The State maintains a police force of 12 officers and 35 men, and there is also a body of village police who receive a monthly salary. There is a jail with accommodation for 102 prisoners at JASHPURNAGAR, where the State also maintains a dispensary at which 2,000 patients were treated in 1904–5. In the same year 6,000 persons were successfully vaccinated. In 1901 only 862 persons could read and write; but some new schools have been opened by the State since that time, and in 1904–5 there were 15 schools with an attendance of 300 pupils.

Jashpurnagar (or Jagdīspur).—Head-quarters of the Jashpur State, Central Provinces, situated in 22° 53′ N. and 84° 8′ E. Population (1901), 1,654. It contains the residence of the chief, a dispensary, and a jail.

Jaso (*Jasso*).—A petty *sanad* State in the Baghelkhand Political Charge of the Central India Agency, lying between 24° 20′ and 24° 34′ N. and 80° 28′ and 80° 40′ E., with an area of about 72 square miles. It is bounded on the north, east, and south by the Nāgod State, and on the west by the Ajaigarh State. The population in 1901 was 7,209. The *jāgīrdār* is a Bundelā Rājput descended from Chhatarsāl, founder of the Pannā State. On the death of Chhatarsāl the Jaso and Bāndhora *jāgīrs* were assigned to his fourth son Bhārtī Chand, who held under his brother Jagat Rāj, the chief of Jaitpur. Bhārtī Chand bequeathed Bāndhora to his eldest son Durjan Singh and Jaso to his second son Harī Singh. Durjan Singh was suc-

ceeded by his son Mednī Singh, who died childless, and Bāndhora was absorbed into Jaso. Early in the nineteenth century the *jāgīr* fell to Alī Bahādur of Bāndā, who assigned it to Gopāl Singh, a rebel servant of the holder Chet Sing. Gopāl Singh, however, espoused the cause of Mūrat Singh, Chet Singh's infant son. On the establishment of the British supremacy, Jaso was held to be subordinate to the Ajaigarh State, and was included in the Kotra *pargana* secured to the Ajaigarh chief by the *sanad* granted him in 1807. To this an objection was raised; and on reference to the British Government it was finally decided that the suzerainty of Ajaigarh had never been more than nominal, and a separate *sanad* was granted to Mūrat Singh in 1816 confirming him in independent possession of Jaso. Jagat Rāj Singh, the present chief, succeeded in 1888, but in 1899 withdrew from active participation in the management. His son Girwar Singh, who is a minor, is being educated at the Daly College at Indore, the State being under superintendence.

Jaso includes 60 villages and has a cultivated area of 29 square miles, or 40 per cent. of the total. The total revenue is Rs. 23,000, of which Rs. 21,000 is derived from land.

The capital, Jaso, is picturesquely situated in 24° 30′ N. and 80° 30′ E., on the banks of a fine lake. The name is said to be a contracted form of Jaseshvarī-nagar, and the place was at various times known as Mahendrī-nagar, Adharpurī, and Hardī-nagar. A small temple, a curious *lingam*, and several *satī* stones stand in the town, while numerous Jain and Hindu remains lie scattered round it. A vernacular school and a hospital are situated here.

[A. Cunningham, *Archaeological Survey Reports*, vol. xxi, p. 99.]

Jasol.—Head-quarters of a *jāgīr* estate of the same name in the Mallāni district of the State of Jodhpur, Rājputāna, situated in 25° 49′ N. and 72° 13′ E., on the left bank of the Lūni river, 2 miles from Bālotra station on the Jodhpur-Bīkaner Railway. Population (1901), 2,543. The village, which is built partly on the slope of a hill, possesses a post office, a vernacular school, and a small hospital. The estate consists of 72 villages, and is held by a Thākur on payment of a tribute of Rs. 2,100 to the Jodhpūr Darbār. About 5 miles to the north-west are the ruins of Kher, the old capital of Mallāni, while to the south-west are the remains of another important town, Nagar. As these places decayed, Jasol rose, and now contains the descendants of some of the earliest Rāthor settlers.

Jaspur.—Town in the Kāshīpur *tahsīl* of Nainī Tāl District, United Provinces, situated in 29° 17′ N. and 78° 50′ E. Population (1901), 6,480. The town is of modern growth and contains few brick houses. It is administered under Act XX of 1856, with an income of about Rs. 2,000. There is a considerable manufacture of cotton cloth

by Julāhās (Muhammadan weavers), who reside here, and also some trade in sugar and timber.

Jaswantnagar.—Town in the District and *tahsīl* of Etāwah, United Provinces, situated in 26° 53′ N. and 78° 53′ E., on the East Indian Railway. Population (1901), 5,405. The town is named after Jaswant Rai, a Kāyasth from Mainpurī, who settled here in 1715. A small Hindu temple west of the town was occupied on May 19, 1857, by mutineers of the 3rd Native Cavalry; during a bold attempt to dislodge them, the Joint-Magistrate was wounded in the face. The town was once a municipality, but is now administered under Act XX of 1856, with an income of about Rs. 1,800. There is a considerable trade in yarn, cattle, country produce, and English piece-goods, besides an export of *ghī* and of *khārua* cloth, which is largely manufactured. Ornamental brassware is also made here, articles for religious use by Hindus being chiefly produced. The town school has about 115 pupils, and there is a branch of the American Presbyterian Mission

Jaswant Sāgar.—A large artificial lake in Jodhpur State. *See* LUNI.

Jath State.—Native State in the Political Agency of Bijāpur, Bombay. *See* BIJĀPUR AGENCY.

Jath Town.—Chief town of the State of the same name, in Bombay, situated in 17° 3′ N. and 75° 16′ E., 92 miles south east of Sātāra town, 95 miles north-east of Belgaum, and 150 miles south-east-by-south of Poona. Population (1901), 5,404. The town is administered as a municipality, with an income (1903–4) of Rs 3,040.

Jāti.—*Tāluka* of Karāchi District, Sind, Bombay, lying between 23° 35′ to 24° 38′ N. and 68° 1′ to 68° 48′ E., with an area of 2,145 square miles. It contains 117 villages, but no town. The population in 1901 was 31,752, compared with 27,895 in 1891. The density is only 15 persons per square mile; and this is the most thinly populated *tāluka* in the District, owing to its barren and unproductive soil and the large tracts of *kalar* land and salt deposits which it contains. The land revenue and cesses in 1903–4 amounted to nearly a lakh. Mughalbhin is the head-quarters. The southern portion is a maze of tidal creeks, and farther inland there is a salt plain, while the north-eastern portion is chiefly cultivable waste. Irrigation depends upon four canals, which directly tap the Indus. The chief crops are rice, *bājra*, barley, *til* and other oilseeds.

Jātingā.—River of Assam, which rises near Hāflang in the North Cāchār hills, and flowing west and south falls into the Barāk. The hill section of the Assam-Bengal Railway has been taken up the valley of the Jātingā, the line running along the right bank of the river. In the plains the Jātingā passes near numerous tea gardens, and during the rainy season a small steamer goes up to Bālāchara near the foot

of the hills. The river is nowhere bridged, but is crossed by five ferries, and is largely used as a trade route. Barkhalā Bāzār, Bālāchara, and Dāmcharā railway station are the most important places on its banks. Its total length is 36 miles.

Jatinga Rāmesvara.—Hill, 3,469 feet high, situated in 14° 50′ N. and 76° 51′ E., in the Molakālmuru *tāluk* of Chitaldroog District, Mysore. It is one of the places where edicts of Asoka have been discovered, and consists of a long ridge, having towards the western end an ancient temple of Rāmesvara, the present building for which was erected in 962.

Jatoi.—Village in the Alīpur *tahsīl* of Muzaffargarh District, Punjab, situated in 29° 31′ N. and 70° 51′ E., 11 miles north-west of Alīpur town. Population (1901), 4,748. Local tradition attributes its foundation to Mir Bajār Khān, in the days of the emperor Bābar. The Indus washed away the original town at the close of the last century, but it was shortly afterwards rebuilt on the present site. Jatoi was for some time subordinate to Bahāwalpur, but was annexed by Dīwān Sāwan Mal. In the war against Mūlrāj, the Jatoi people threw off the Sikh rule, and rendered good service.

Jatpol.—A *samasthān* or tributary estate in the south of Mahbūbnagar District, Hyderābād State, consisting of 89 villages, with an area of 191 square miles, and a population (1901) of 31,613. The total revenue is 1·9 lakhs, and the tribute paid to the Nizām is Rs. 73,537.

From inscriptions it appears that in 1243 Annapota Nāyadu took possession of the estate, and captured PANGAL and other forts. His dominions extended on the east as far as Srisil, on the west to Kotta and Sugūr, now belonging to the Wanparti *samasthān*, on the north to Devarkonda, and on the south they were bounded by the Kistna river. His descendants ruled for several centuries. In the last quarter of the eighteenth century Rājā Jagannāth Rao, having no male issue, adopted Lachma Rao, a scion of the Rao family of Pākhāl. In 1831 Lachma Rao obtained the Jatpol *pargana* from the Nizām on a fixed rental of Rs. 70,000. The present Rājā, Venkata Lachma Rao, who is a younger brother of the Rājā of Venkatagiri in the Madras Presidency, also succeeded by adoption. He has cleared off debts amounting to nearly 2 lakhs, with which the estate was encumbered. The Rājā resides at Kolhāpur (population, 2,204), though until eighty years ago Jatpol was the head-quarters.

Jaugada.—Ruined fort in Ganjām District, Madras, situated in 19° 33′ N. and 84° 50′ E., about 18 miles west of Ganjām town, on the north bank of the Rushikulya in the Berhampur *tāluk*, among the remains of what was once a large city surrounded by a wall. Towards the centre of the fort is a huge granite mass, on which are inscribed thirteen edicts of the Buddhist emperor Asoka (about 250 B.C.). They

are of special interest as being the only examples of these edicts in the Madras Presidency. Old pottery and tiles abound within the fort wall; numbers of copper coins have been found, some of which are assigned to the first century A.D.; and an old temple has been discovered buried under débris and earth.

Jaulna.—*Tāluk* and town in Aurangābād District, Hyderābād State. *See* JĀLNA.

Jaunpur District.—North-western District of the Benares Division, United Provinces, lying between 25° 24′ and 26° 12′ N. and 82° 7′ and 83° 5′ E., with an area of 1,551 square miles. In shape it is an irregular triangle, with the southern boundary as base, and the eastern and western boundaries running up to a blunt apex in the north. The boundaries are formed—on the south by Allahābād, Mirzāpur, and Benares; on the east by Ghāzipur and Azamgarh; on the north by Sultānpur; and on the west by Sultānpur and Partābgarh. Jaunpur District forms part of the Gangetic plain, but is slightly irregular in contour, with a series of undulating slopes. This apparent diversity of surface is increased by the occurrence of lofty mounds often covered with groves, which mark the sites of ruined or deserted towns, the relics of a forgotten race, or the demolished forts of the modern inhabitants. The entire area is very highly cultivated, and the village sites are small and scattered about at short intervals. While the country is well wooded, the trees are seldom planted together in groves. The District is divided into two unequal parts by the sinuous channel of the Gumtī, a tributary of the Ganges, which flows past the capital city, and cuts off one-third of the area to the north-east. It is a considerable river and is crossed by a fine old stone bridge at Jaunpur, and by a railway bridge two miles lower down. The Gumtī is liable to great and sudden floods. While its ordinary rise seldom exceeds 15 feet, it rose 23½ feet in fourteen days in September, 1871, and was 37 feet above its dry-season level. There are no streams of importance north of the Gumtī; but it receives the Sai from the south, and a smaller affluent, called the Pīli Nadī. The Barnā divides Mirzāpur from Jaunpur and has a small tributary, called the Basūhī.

Physical aspects.

Jaunpur exposes nothing but Gangetic alluvium, in which *kankar* or calcareous limestone and saline efflorescences are the only minerals found.

The flora of the District does not differ from that of the Gangetic plain generally. The mango, *mahuā*, *shīsham* (*Dalbergia Sissoo*), various figs, and the *babūl* (*Acacia arabica*) are the commonest trees. A weed called *rasnā* or *baisurai* (*Pluchea lanceolata*), which grows in light soil, is of some hindrance to cultivation.

Owing to the density of the population and the absence of forests or

waste lands, wild animals are scarce, and include only a few wolves in the ravines of the Gumtī and Sai, an occasional *nīlgai*, and small animals. Geese, duck, and quail are the commonest wild-fowl, and fish are found abundantly in the rivers and small *jhīls*.

The climate of Jaunpur is moister, and the temperature more equable, than in most Districts of the United Provinces. In January the temperature ranges from about 50° to about 75°, and in May and June from 80° to 110°.

The annual rainfall averages 42 inches, the amount being almost the same in all parts of the District. While variations occur from year to year, extreme failures are very uncommon.

History.

The earliest traditions connected with the District point to its occupation by aboriginal Bhars and Soerīs. In the later Hindu period it contained several places of importance, chief among which was ZAFARĀBĀD, then known as Manaich. This place has recently been identified as the fort of Munj, captured by Mahmūd of Ghazni in 1019. The rule of the Musalmāns was not, however, established at that time, and towards the close of the eleventh century the District was included in the new Rāthor kingdom of Kanauj. When Muhammad Ghorī commenced his victorious march against Jai Chand of Kanauj, the latter sent his vast treasures to the fort of Asnī, which was also probably situated near Zafarabād, and after Jai Chand's death in 1194 the Muhammadans penetrated through this place to Benares. The magnificent temples of the Rāthor kings were plundered and overthrown, and although Hindu governors were recognized, they paid allegiance to the king of Delhi. In 1321 Ghiyās-ud-dīn Tughlak appointed his son, Zafar Khān, governor, and thirty-eight years later, in 1359, Fīroz Shāh Tughlak founded the city of JAUNPUR. A eunuch, named Malik Sarwar, who had held important posts at the court of Delhi, was appointed Wazīr in 1389 with the title of Khwāja-i-Jahān. A few years later, in 1394, the administration of all Hindustān, from Kanauj to Bihār, was placed in his charge, so that he might reduce the turbulence of the Hindus, and he assumed the title of Sultān-ush-Shark, or 'king of the east.' The ambitious eunuch had hardly succeeded in his task when he declared his own independence, the revolt being rendered easier by Tīmūr's invasion, which destroyed the last semblance of the authority of the kings of Delhi. Tīmūr, on his departure from India, granted large *jāgīrs* to Khizr Khān, and Khwāja-i-Jahān materially strengthened his position by adopting Khizr Khān's nephew, Karanphūl, as his son and heir. The dynasty thus founded ruled at Jaunpur for nearly a century, and proved formidable rivals to the sovereigns of Delhi. Khwāja-i-Jahān died in 1399, and was succeeded by Karanphūl under the title of Mubārak Shāh. An attempt was made by Ikbāl Khān, *de facto* ruler of Delhi,

to crush the rising power, but without success. Mubārak Shāh died in 1401 and was succeeded by his brother, Ibrāhīm Shāh, who, like his successors, was a builder of magnificent mosques and a patron of learning. In 1407 Ibrāhīm achieved his desire and took Kanauj, Sambhal, and Baran (Bulandshahr), He was approaching Delhi when news came that Muzaffar Shāh (I) of Gujarāt had defeated Hoshang Shāh of Mālwā, and had designs on Jaunpur. Ibrāhīm therefore withdrew, giving up his new acquisitions of Sambhal and Baran. By 1414, Khizr Khān acquired the supreme power at Delhi. Ibrāhīm was thus for a time free from danger in that quarter, and set out in 1427 to attack Kālpī, but was opposed by Mubārak Shāh, who had succeeded Khizr Khān in 1421. He made another unsuccessful attempt in 1432, and also invaded Bengal and other adjoining territory. Ibrāhim died in 1440, and was succeeded by his son Mahmūd, who was allowed by the king of Mālwā to attack Kālpī in 1444, in order to punish an impious governor. Mahmūd attempted to retain this fief, but was compelled to resign it. He then sacked Chunār and laid waste Orissa, and in 1452 advanced to Delhi during the absence of Bahlol Lodī, who had ascended the throne a year earlier. Bahlol returned and Mahmūd retired; but a few years later hostilities again broke out and continued till Mahmud's death in 1459. His eldest son, Muhammad Shāh, was killed after a few months and was succeeded by another son called Husain Shāh. For some years Husain confined his incursions to Orissa, or to Bundelkhand and Baghelkhand; but at length he too undertook to invade Delhi, and lost his kingdom in the venture. The first expedition took place in 1473, and during the next few years fortune inclined now to one side and now to the other. In 1480, however, Husain was twice defeated in the Central Doāb, and Jaunpur fell. Husain maintained hostilities in various directions, and in 1487 recovered Jaunpur for a time, but was soon driven out again, and Bārbak Shāh, son of Bahlol, became governor. Bahlol died in 1489 and was succeeded by his son, Sikandar; Bārbak Shāh also claimed the throne, and was defeated, but restored to his governorship. Revolts continued, and Husain Shāh made a final effort about 1496, but was repelled and died a few years later. When Ibrāhīm, last of the Lodīs, was defeated and killed by Bābar at Pānipat in 1526, Bahādur Khān, the governor of Bihār and Jaunpur, asserted his independence; but after the fall of Agra and Delhi, Bābar sent his son Humāyūn eastward. The Mughal rule was not, however, firmly established, and the Pathāns under Sher Shāh and his successors governed the country for a time. On the revival of Mughal power, Jaunpur fell before Akbar's general in 1559, and remained in the Mughal empire till its break up, although rebellions took place soon after the capture of the city. At the reorganization of the empire in 1575 Allahābād became the capital of

the province in which Jaunpur was included. Nothing worthy of note occurred in connexion with this District until 1722, when it passed to the Nawāb of Oudh. Some years later it was granted to Mansā Rām, founder of the BENARES ESTATE; and it remained in the possession of his family, with the exception of the fort of Jaunpur, though the Bangash Nawāb of Farrukhābād nominated a governor about 1750, after defeating the Nawāb of Oudh. The District was ceded to the British in 1775, with the rest of the Province of Benares.

From that time nothing occurred which calls for notice till the date of the Mutiny. On June 5, 1857, news of the Benares revolt reached Jaunpur. The sepoys of the treasury guard at once mutinied and shot their own officers, as well as the Joint-Magistrate. They then marched off to Lucknow without molesting the other Europeans, who made good their escape to Benares. The District continued in a state of complete anarchy till the arrival of the Gurkha force from Azamgarh on September 8. The civil officials then returned to Jaunpur, and the police stations were re-established; but the north and west of the District remained in rebellion. In November, owing to the active levies made by Mahdī Hasan, who styled himself Nāzim of Jaunpur, most of the surrounding country was lost again. But in February, 1858, the rebels of the north and west were defeated and dispersed; and in May the last smouldering embers of disaffection were stifled by the repulse of the insurgent leader, Jurhī Singh, from Machhlīshhahr at the hands of the people themselves.

The magnificent buildings of the Sharkī kings at JAUNPUR, and the earlier buildings of ZAFARĀBĀD, were partly constructed from the remains of Hindu temples, none of which has remained intact. A few inscriptions exist in them, and a copperplate grant of Gobind Chand, king of Kanauj, has been found in the District.

Population.

Jaunpur contains 7 towns and 3,152 villages. Population has varied. The numbers at the last four enumerations were as follows: (1872) 1,025,961, (1881) 1,209,663, (1891) 1,264,049, and (1901) 1,202,920. The enumeration of 1872 was probably imperfect; during the last decade the District suffered from a succession of bad seasons. There are five *tahsīls*—JAUNPUR, MARIĀHŪ, MACHHLĪSHAHR, KHUTĀHAN, and KIRĀKAT—each named from its head-quarters except Khutāhan, which has its head-quarters at SHĀHGANJ. The only municipality is JAUNPUR CITY, the District capital. The table on the next page gives the chief statistics of population in 1901.

Hindus form nearly 91 per cent. of the total, and Musalmāns 9 per cent. The density of population is high in all parts of the District. About 81 per cent. of the population speak Eastern Hindī and 15 per cent. Bihārī, the boundary between these languages passing through the north-east of the District.

The Hindu castes most largely represented are Chamārs (leather-workers and labourers), 182,000; Ahīrs (graziers and agriculturists), 173,000; Brāhmans, 146,000; Rājputs, 101,000; Koirīs (cultivators), 49,000; and Kurmīs (agriculturists), 46,000. The aboriginal Bhars still number as many as 25,000. Among Musalmāns may be mentioned the Julāhās (weavers), 28,000; Shaikhs, 18,000; Pathāns, 13,000; and Behnās (cotton carders), 11,000. Agriculture supports as many as 77 per cent. of the total population, and general labour less than 2 per cent. Rājputs own more than a third of the land, and Brāhmans, Saiyids, Shaikhs, and Baniās are also large landholders. High castes also hold as tenants a rather greater proportion than the low castes. The inhabitants of this District supply considerable numbers of emigrants to Assam, the Eastern Districts of Bengal, and the colonies.

Tahsīl.	Area in square miles.	Number of		Population.	Population per square mile.	Percentage of variation in population between 1891 and 1901.	Number of persons able to read and write.
		Towns.	Villages.				
Jaunpur	280	2	711	269,131	961	− 3·4	6,868
Mariāhū	321	1	676	243,792	759	− 3·8	5,049
Machhlīshahr	344	2	610	233,431	679	− 4·6	5,494
Khutāhan	362	1	700	269,438	744	− 6·1	7,542
Kirākat	244	1	455	187,128	767	− 7·2	7,497
District total	1,551	7	3,152	1,202,920	776	− 4·9	32,450

There were only 62 native Christians in the District in 1901. Of these, 47 belonged to the Anglican communion and 8 were Methodists. The Church Missionary Society opened a branch at Jaunpur city in 1833. There has been a Wesleyan Mission at Shāhganj since 1879, and a Zanāna Mission at Jaunpur since 1890.

Agriculture.

The District being permanently settled, accurate details are not available as to the distribution of the various classes of soil. Generally speaking, light sandy soil is found near the banks of the rivers, especially the Sai and Gumtī. The sand gradually changes to a very fertile loam which, however, requires constant irrigation; and, lastly, clay is found remote from the rivers. The largest clay tracts in which the best rice can be grown are found in the north and the south-west. The District is very highly cultivated, and there are no extensive areas of waste land, except a few *ūsar* plains in the Khutāhan *tahsīl*. The Gumtī and Sai frequently flood the low-lying land in their beds; but the loss is not serious, and the chief danger to agriculture is the liability of the spring crops to suffer from rust in a wet winter.

The usual tenures existing in the permanently settled tract of the

United Provinces are found, *zamīndāri mahāls* being the commonest. The *mahāls* are, however, frequently complex: that is, a single *mahāl*, instead of forming a single village (*mauza*) or part of a *mauza*, includes several *mauzas* or parts of *mauzas*. There are a few *talukdāri* estates; but the *talukdārs* are here known as *peshkashdārs*, and the under-proprietors as *farotars*. Most of these estates were originally grants for the maintenance of the Jaunpur garrison. The main agricultural statistics for 1903–4 are shown below, in square miles:—

Tahsīl.	Total.	Cultivated.	Irrigated.	Cultivable waste.
Jaunpur . . .	280	192	125	29
Mariāhū . . .	321	212	116	39
Machhlīshahr . .	344	205	106	50
Khutāhan . . .	362	228	129	50
Kirākat	244	161	95	27
Total	1,551	998	571	195

The staple food-crops are barley, covering 303 square miles, or 28 per cent. of the net cultivated area, rice (251), peas and *masūr* (137), and maize (124). The Jaunpur variety of maize is especially noted throughout the Provinces. Gram, wheat, *arhar*, *jowār*, and the smaller millets are also largely grown. Sugar-cane is an extremely valuable crop, and was grown on 53 square miles in 1903–4, while hemp (*san*) covered 14 square miles. Oilseeds, indigo, poppy, and tobacco cover smaller areas.

When the District was first acquired in 1775 there were large areas of waste. Mr. Duncan, who carried out the permanent settlement, gave special facilities for breaking up waste, and also encouraged the growth of sugar-cane and introduced indigo, poppy, and potatoes. The result was a speedy increase in the cultivated area. During the last sixty years, however, the area under cultivation has increased by only 4 per cent., and the chief change recently has been the rise in the area double cropped. Indigo is declining rapidly, as in most parts of the Provinces; and the area sown is now only 5 square miles, or less than a quarter of what it was twenty years ago. Maize and rice are more largely grown than formerly in the autumn, and wheat in the spring harvest. In adverse seasons loans under the Agriculturists' Loans Act are taken, but advances under the Land Improvement Act are very rare. The total of loans from 1891 to 1900 amounted to only a lakh, of which Rs. 30,000 was advanced in 1896–7. Very small advances have been made since.

The cattle of the District are inferior, and the best animals are imported. A Government bull was once kept, and its services were eagerly sought for. The ponies are also of a poor stamp, but are

largely used as pack animals. Sheep and goats are of the ordinary type.

Out of 571 square miles irrigated in 1903-4, wells supplied 442 square miles, tanks or *jhīls* 126, and other sources 3. The area irrigated from tanks or *jhīls* is probably understated, as every pond is used for irrigating the late rice. Water is raised from wells in a leathern bucket by bullocks or men, except in the extreme north, where the spring-level is so high that a lever can be used. Excellent wells can be made without brick linings, which will last from one to ten years. The tanks are sometimes artificial, but are all of small size; the swing-basket worked by four or eight persons is usually employed to raise water from tanks and *jhīls*.

Kankār or calcareous limestone is found in all the upland parts of the District, and is used for metalling roads and for making lime.

Trade and communications.

Sugar-refining is the most important industry in the District. A little coarse cotton cloth is made in many places for local use. The manufacture of indigo still continues, but on a very small scale since the introduction of synthetic indigo. Jaunpur city is celebrated for the manufacture of scents, and also produces a little papier-mâché work.

The District being almost entirely devoted to agriculture, its trade is confined to raw materials and food-stuffs. Sugar, food-grains, scents, and oilseeds form the chief exports; and salt, piece-goods, metals, and spices are imported. Jaunpur city, Shāhganj, and Mungrā Bādshāhpur are the chief trade centres.

The loop-line of the Oudh and Rohilkhand Railway from Benares through Fyzābād to Lucknow traverses the District from south to north, while the main line of the same railway crosses the south-west corner. A branch from Zafarābād to Phāphāmau on the Ganges is now under construction, which will give access to Allahābād. Shāhganj is connected with Azamgarh, and Jaunpur city with Ghāzīpur, by branches of the Bengal and North-Western Railway.

The District is well supplied with roads, the length of which is 586 miles. Of the total, 186 miles are metalled and are maintained by the Public Works department, but the cost of all but 45 miles is met from Local funds. An excellent system of metalled roads radiates from Jaunpur city to Allahābād, Fyzābād, Azamgarh, Benares, and Mirzāpur. Avenues of trees are maintained on 229 miles.

Famine.

Jaunpur has usually escaped from famine, owing to the rarity of complete failure of the rains. No details are available for the famines of 1770 and 1783, but the pressure of high prices was felt in 1803-4. The disastrous seasons of 1837-8 and 1860-1 hardly affected this District, and even in 1868 the threatened famine was averted by heavy rain in September. The

famines of 1873–4 and 1877–8 also pressed very lightly. In 1896–7, however, the District suffered severely. Heavy rain had damaged the crops in 1894, and in the two following years the rainfall was deficient, so that the important late rice crop failed. Relief works were opened and advances were given for the construction of wells; but the first fall of rain in June, 1897, ended the famine.

Administration. The Collector is usually assisted by a member of the Indian Civil Service (when available), and by five Deputy-Collectors recruited in India. A *tahsīldār* is stationed at the head-quarters of each *tahsīl*.

There are two District Munsifs, a Subordinate Judge, and a District Judge for civil work. The Court of Sessions hears the sessions cases of Bastī District as well as those of Jaunpur. Owing to the pressure on the soil, disputes about cultivation, proprietary rights, and irrigation are common, and sometimes lead to serious riots · but the worst kinds of crime, such as murder and dacoity, are not very prevalent. Female infanticide was found by Mr. Duncan to be rife in 1789, and on the passing of an Act for its repression in 1870 a large number of persons were proclaimed; but all have since been exempted, and the practice is believed to be extinct.

Though a Judge-Magistrate was placed in charge of an area corresponding to the present District as early as 1795, the revenue administration was not separated from that of BENARES till 1818. From its acquisition in 1775 the District was in charge of the Rājā of Benares till 1788, when Mr. Duncan, the Resident, commenced a settlement which was made permanent in 1795. Default in the payment of revenue, and the turbulence of the population of this part of the huge District of Benares, led to the formation of a Deputy-Collectorate of Jaunpur in 1818, which soon became a separate District. In 1820 a large tract of what is now Azamgarh District was placed under the Collector of Jaunpur, but part of it was removed in 1823 and the rest in 1830. There have been a few other smaller changes. The revenue demand fixed by Mr. Duncan on the present area amounted to 11·1 lakhs, rising to 11·3 lakhs. It has since increased to 12·5 lakhs, owing to the inclusion of land not previously assessed. The permanent settlement included no detailed record of-rights and was not based on a survey; and maps and records were not prepared till between 1839 and 1841. In 1849 the rent payable by the *farotars* to the *peshkashdārs* was for the first time determined and recorded. The whole of the records prepared in 1841 were destroyed in the Mutiny of 1857, and when order was restored an attempt was made to prepare them afresh. The new record was completed in 1867, but was soon found to be incorrect and inadequate. A fresh revision was, therefore, made between 1877 and 1886, based on a resurvey. The usual village

papers are now prepared annually as in the rest of the Provinces. The incidence of land revenue is Rs. 1·4 per acre, varying from R. 1 to Rs. 2·2 in different parts of the District.

Collections on account of land revenue and revenue from all sources have been, in thousands of rupees:—

	1880–1.	1890–1.	1900–1.	1903–4.
Land revenue . .	12,40	11,20	13,63	12,74
Total revenue . .	15,03	16,49	20,32	19,36

JAUNPUR CITY is the only municipality, but six towns are administered under Act XX of 1856. The District board manages local affairs outside the limits of these, and in 1903–4 had an income expenditure of 1·1 lakhs, chiefly derived from local rates. The expenditure included Rs. 60,000 on roads and buildings.

There are 17 police stations; and the District Superintendent of police has a force of 3 inspectors, 83 subordinate officers, and 350 constables, besides 163 municipal and town police, and 1,954 rural and road police. The District jail contained a daily average of 231 prisoners in 1903.

Jaunpur District takes a low position as regards the literacy of its population, of whom 2·7 per cent. (5·4 males and 0·1 females) could read and write in 1901. Musalmāns are distinctly more advanced in this respect than Hindus, 4·2 per cent. being literate. The number of public schools rose from 148 with 5,546 pupils in 1880–1 to 164 with 7,320 pupils in 1900–1. In 1903–4 there were 199 such schools with 8,862 pupils, of whom 169 were girls, besides 114 private schools with 1,792 pupils. Only 1,623 pupils were in classes beyond the primary stage Two of the public schools were managed by Government and 138 by the District and municipal boards. Out of a total expenditure on education of Rs. 40,000, Local funds contributed Rs. 30,000 and fees Rs. 8,000.

There are 8 hospitals and dispensaries, with accommodation for 53 in-patients. In 1903 the number of cases treated was 75,000, including 400 in patients, and 3,000 operations were performed. The total expenditure was Rs. 8,000, which was chiefly met from Local funds

About 37,000 persons were successfully vaccinated in 1903–4, representing a proportion of 31 per 1,000 of population. Vaccination is compulsory only in the municipality of Jaunpur.

[District Gazetteer (1884, under revision); P. C. Wheeler, *Report on Revision of Records in Jaunpur* (1886): A. Führer, *The Sharqi Architecture of Jaunpur* (1889)]

Jaunpur Tahsīl.—Head-quarters *tahsīl* of Jaunpur District, United

Provinces, comprising the *pargana* of Havelī Jaunpur and *tappas* Saremau, Rārī, Zafarābād, Karyāt Dost, and Khaprahā, and lying between 25° 37′ and 25° 54′ N. and 82° 24′ and 82° 52′ E., with an area of 280 square miles. Population fell from 278,482 in 1891 to 269,131 in 1901. There are 711 villages and two towns, including JAUNPUR CITY (population, 42,771), the District and *tahsīl* head-quarters. The demand for land revenue in 1903-4 was Rs. 2,39,000, and for cesses Rs. 43,000. The density of population, 961 persons per square mile, is the highest in the District. The sinuous course of the Gumtī winds through the centre of the *tahsīl*, while the Sai crosses the western portion and then forms the southern boundary. There is a considerable area of sandy soil, and ravines furrow the ground near the rivers. The area under cultivation in 1903–4 was 192 square miles, of which 125 were irrigated, almost entirely from wells.

Jaunpur City.— Head-quarters of the District and *tahsīl* of the ame name, United Provinces, situated in 25° 45′ N. and 82° 41′ E., on the Oudh and Rohilkhand and Bengal and North-Western Railways, 515 miles by rail from Calcutta and 977 miles by rail from Bombay. It lies on the banks of the Gumtī river, and at the junction of metalled roads from Allahābād, Fyzābād, Azamgarh, Benares, and Mirzāpur. Population has been almost stationary for the past twenty years. The numbers at the last four enumerations were as follows: (1872) 35,003, (1881) 42,845, (1891) 42,815, and (1901) 42,771. In 1901 the population included 26,091 Hindus and 16,596 Musalmāns.

The origin of the name Jaunpur, also known as Jawanpur, and occasionally as Jamanpur, is uncertain. Hindus derive it from Jamadagni, a famous *rishi*, in whose honour a shrine has been raised, while Musalmāns assert that the city takes its name from Ulugh Khān Jūnā, afterwards Muhammad Shāh (II) bin Tughlak of Delhi. Up to the fourteenth century the neighbouring town of ZAFARĀBĀD was of greater importance; but ancient remains show that a town existed also on the present site of Jaunpur. A shrine sacred to Karār Bīr, the giant demon slain by Rāma, king of Ajodhyā, still stands near the fort; and tradition says that the fort itself is on the site of a temple built by Bijai Chand of Kanauj in the twelfth century. In 1359 Fīroz Shāh Tughlak halted at Zafarābād on his way to Bengal, and was struck by the suitability of the neighbourhood for the foundation of a new city, which was at once commenced. Some years later Jaunpur became the head-quarters of a governor, and in 1394 a eunuch named Khwāja-i-Jahān received the appointment. He soon declared himself independent; and for nearly a century, as has been related in the history of JAUNPUR DISTRICT, his successors ruled a varying area, which sometimes extended from Bihār to Sambhal and Aligarh (Koil), while

they even threatened Delhi. Jaunpur remained the seat of a governor till the reorganization of the empire by Akbar, who raised Allahābād to the position of a provincial capital. From that date Jaunpur declined in political importance, though it retained some of its former reputation as a centre of Muhammadan learning, which had gained for it the title of the Shīrāz of India. On the acquisition of the province of Benares in 1775, Jaunpur became British territory, and an Assistant was posted here subordinate to the Resident at Benares. A Judge-Magistrate was appointed in 1795, and in 1818 Jaunpur became the head-quarters of a Sub-Collector and shortly afterwards of a Collector.

The main portion of the city lies on the left bank of the Gumtī, while some outlying quarters and the civil station are situated on the right bank. The river is crossed here by a magnificent stone bridge built by Munim Khān, governor under Akbar. In the city proper are situated the splendid monuments of the Jaunpur kings, which form the finest specimens of Pathān architecture in Northern India. Very little remains of the earlier fort built by Fīroz Shāh. It was an irregular quadrangular building, overlooking the Gumtī and surrounded by a stone wall built round an artificial earthen mound. The materials were largely obtained from temples In 1859 the towers and most of the buildings in the fort were destroyed. A magnificent gateway, added in the sixteenth century, a small mosque built in 1376, and a spacious set of Turkish baths constructed by Ibrāhīm Shāh, are alone fairly complete. The earliest mosque is that known as the Atāla Masjid, which was built by Ibrāhīm Shāh, and completed in 1408. It consists of a fine courtyard with double storeyed cloisters on three sides, and the mosque itself on the west. The most striking feature is the magnificently decorated façade, 75 feet in height, with a breadth of nearly 55 feet at the base, which stands before the dome of the mosque and recalls the propylons of Egypt. It consists of a great arched gateway surmounted by a pierced screen, and forming a recess in a gigantic frame flanked by massive towers. Smaller gateways of similar construction stand on either side The Atāla Masjid is said to occupy the site of a temple of Atāla Devī which Fīroz Shāh attempted to appropriate, but which he was induced to leave on account of the threatening attitude of the people. The Darība Masjid, built by two of Ibrāhīm's nobles, has a domed hall and two wings, marked by a low façade of the peculiar Jaunpur type, but with little ornamentation. It is said to have been built on the site of a temple of Bijai Chand of Kanauj. Only the great piers and beautiful central screen remain to show the magnificence of the Jhanjhrī mosque, which was built by Ibrāhīm Shāh on the site of Jai Chand's temple at Muktāghāt, but was demolished by Sikandar Lodī. The Lāl Darwāza mosque, erected by Bībī Rājī, the queen of Mahmud Shāh, is smaller than the Atāla

Masjid, the propylon being only 49 feet high. The cloisters, which are of one story, are in a poor state of preservation. The Jāma Masjid, or great mosque of Husain Shāh, is believed to have been founded as early as 1438; but work on it was suspended for many years, and it was not completed till 1478. The mosque stands on a raised terrace, and its courtyard is surrounded on three sides by cloisters with aisles, the upper story of which was pulled down by Sikandar Lodī. There is a massive domed entrance gateway in each of these sides, which also suffered at the hands of the Lodī king, and the fourth is occupied by the mosque proper with its majestic façade 84 feet in height. This mosque is being gradually restored. Close to the northern gateway stands a small enclosure in which lie the modest tombs of Husain Shāh and some of his descendants; the tombs of the earlier rulers are situated on a platform in another part of the city. Many smaller mosques and tombs are to be seen, but no traces exist of the palaces and college which once graced Jaunpur. The modern public buildings are few and unimportant; they include the usual courts and two dispensaries, one of which is maintained by the Zanāna Bible and Medical Mission.

Jaunpur has been a municipality since 1867. During the ten years ending 1901 the income and expenditure averaged Rs. 39,000 and Rs. 37,000 respectively. In 1903-4 the income was Rs. 58,000, chiefly derived from octroi (Rs. 39,000) and rents and fees (Rs. 11,000); and the expenditure was Rs. 57,000, including conservancy (Rs. 14,000), administration and collection (Rs. 10,000), and public safety (Rs. 11,000). The town is celebrated for the manufacture of perfumes from the flowers of the rose, jasmine, and screw-pine, and from the root of the *khaskhas* grass (*Andropogon muricata*). Papier-mâché articles, such as cigar-cases, book-covers, &c., are also made. The town was formerly noted for its paper manufacture, but this has died out. There is some trade in grain, and in the distribution of imported goods; but Jaunpur is not an important commercial centre. Two high schools and six of lower grade have a total attendance of 607 pupils. In addition to these, Arabic is taught at the Jāma Masjid.

[A. Fuhrer, *The Sharqi Architecture of Jaunpur* (1889).]

Jaunsār-Bāwar.—Name of a *pargana* which now forms the whole of the CHAKRĀTA *tahsīl* in Dehra Dūn District, United Provinces.

Javādi Hills.—A detached group of hills, in Madras, lying between 12° 18′ and 12° 54′ N. and 78° 35′ and 79° 11′ E., and for the most part situated in the south-west corner of North Arcot District, though spurs run down into South Arcot and Salem. In North Arcot some of the peaks attain an elevation of over 3,000 feet. They are there separated from the EASTERN GHĀTS by the broad valley of the PĀLĀR. This narrows in the neighbourhood of Ambūr, where the Javādis and

the Eastern Ghāts almost join, but it widens again as it leaves North Arcot and passes into Salem. The Javādis are made up of numerous small plateaux, which contain in North Arcot 110 hamlets, or clusters of huts, inhabited by a Tamil-speaking hill tribe called Malaiyālis. These people number nearly 10,000; and though they appear to be ethnologically of the same stock as the Tamils of the low country, their long isolation has led to divergencies in their ways, and they possess certain peculiar customs of their own. The climate of the hills is malarious at certain seasons, but does not merit the utter condemnation generally accorded it. Spurs from the main range extend in a north-easterly direction as far as the town of Vellore, gradually declining in height as they approach the Pālār. One detached peak, Kailasagarh, 2,743 feet in height, is only 6 miles distant from Vellore, and the small bungalow upon its summit forms a pleasant retreat during the hot season. The Javādis used to be covered with fine forest, but this has been almost entirely destroyed. Much damage was done when the construction of the south-west line of the Madras Railway was in progress, enormous quantities of timber being at that time felled for sleepers. Careful conservation is now helping to remedy the recklessness of past years. Game is fairly abundant in these hills. Bison, *sāmbar*, spotted deer, leopards, and an occasional tiger are found in them. The Javādis are one of the only two tracts in the Presidency where the cultivation of the intoxicating *gānja* (*Cannabis sativa*) is permitted under licence. A little coffee cultivation has been attempted on the South Arcot side, and the produce is sold in the local markets. There are relics of Hindu temples, with some inscriptions, at Kovilanūr on the way from Patrakād to Komatiyūr, and signs of former occupation by a civilized nation.

Jāvli.—Northern *tāluka* of Sātāra District, Bombay, lying between 17° 32′ and 17° 59′ N. and 73° 36′ and 73° 59′ E., with an area, including the petty subdivision (*petha*) of Malcolmpeth, of 423 square miles. It contains one town, Malcolmpeth or MAHĀBALESHWAR (population, 5,299); and 249 villages. The population in 1901 was 65,587, compared with 70,744 in 1891. The density, 155 persons per square mile, is much below the District average. The demand for land revenue in 1903–4 was Rs. 91,000, and for cesses Rs. 8,000. Throughout the hot season the Western Ghāt hill tracts, which form a large part of the *tāluka*, are cool and breezy. Medha, the *tāluka* head-quarters, has an average rainfall of 81 inches annually, while Mahābaleshwar receives 292 inches.

Jāwad.—Town in the Mandasor district of Gwalior State, Central India, situated in 24° 36′ N. and 74° 52′ E., 1,410 feet above sea-level. Population (1901), 8,005. The town was founded about 500 years ago, and belonged originally to the chiefs of Mewār. In the time of Rānā

Sangrām Singh and his successor Jagat Singh, the wall which now surrounds the town was erected. In 1818, during the Pindāri War, Jaswant Rao Bhau, one of Sindhia's officers who then held Jāwad, persisted in supporting the Pindāri leaders Chītū and Fāzil Khān. The place was, therefore, attacked and taken by General Brown in 1819, but was subsequently restored to Sindhia. In 1844 it was included in the districts assigned for the maintenance of the Gwalior Contingent, but was again made over to Sindhia in 1860. Jāwad is a commercial centre of some importance, a considerable trade in grain and cloth being carried on. It was formerly noted for its dyeing industry, the dye of the *āl* (*Morinda tinctoria*) being used. Of late years, however, this trade has decayed owing to the introduction of European dyes. The town is still noted for its manufacture of bracelets, which are exported in large quantities to Rājputāna. The town customs dues amount to Rs. 27,000 a year. A State post office, a flourishing school with 300 pupils, a police station, a dispensary, and a public works inspection bungalow are situated in the town. The Canadian Presbyterian Mission has an out-station here.

Jawādi.—Hill range in North Arcot District, Madras. *See* JAVĀDI.

Jawāla Mukhi.—Ancient site in the Dera Gopipur *tahsīl* of Kāngra District, Punjab, situated in 31° 52′ N. and 76° 20′ E., on the road from Kāngra town to Nādaun, at the foot of a precipitous range of hills, which forms the northern limit of the Beās valley. Population (1901), 1,021. Once a considerable and opulent town, as its ruins testify, it is now chiefly famous for the temple of the goddess Jawāla Mukhi, 'she of the flaming mouth,' which lies in the Beās valley and is built over some natural jets of combustible gas, believed to be a manifestation of the goddess Devī. Another legend avers that the flames proceed from the mouth of the demon Jālandhara, the Daitya king whom Siva overwhelmed with mountains, and who gives his name to the Jullundur Doāb. The building is modern, with a gilt dome and pinnacles, and possesses a beautiful folding door of silver plates, presented by the Sikh Rājā, Kharak Singh. The interior of the temple consists of a square pit about 3 feet deep, with a pathway all round. In the middle the rock is slightly hollowed out about the principal fissure, and on applying a light the gas bursts into flame. The gas escapes at several other points from the crevices of the walls of the pit. It collects very slowly, and the attendant Brāhmans, when pilgrims are numerous, keep up the flames with *ghī*. There is no idol of any kind, the flaming fissure being considered as the fiery mouth of the goddess, whose headless body is said to be in the temple of Bhawan. The income of the temple, which is considerable, belongs to the Bhojki priests. At one time the Katoch Rājās appear to have appropriated the whole or the greater part of the receipts; and under Muhammadan rule a poll tax of one anna

was levied upon all pilgrims. The number of these in the course of the year is very great; and at the principal festival in September–October as many as 50,000 are said to congregate, many coming from great distances. Another festival of scarcely less importance takes place in March. Six hot mineral springs, impregnated with common salt and iodide of potassium, are found in the neighbourhood. A *sarai* erected by the Rājā of Patiāla is attached to the temple, and there are also eight *dharmsālas* or resthouses for travellers. The temple was slightly damaged by the earthquake of April 4, 1905. The municipality was abolished in 1885.

Jawāsiā.—*Thakurāt* in the Mālwā Agency, Central India.

Jawhār.—State situated within the geographical limits of Thāna District, Bombay, between 19° 40′ and 20° 4′ N. and 73° 2′ and 73° 23′ E., with an area of 310 square miles. Jawhār State consists of two unequal patches of territory, the larger in the north-eastern part of Thāna District, and the smaller in the north-western. The Bombay, Baroda, and Central India Railway just touches the western boundary of the smaller patch.

Most of Jawhār is a plateau raised about 1,000 feet above the Konkan plain. Eastward the Western Ghāts can be crossed by pack-bullocks through the Chinchutāra and Gonde passes to the north, and through the Dhondmāre and Shir passes to the south, of the high hill of Vatvad. The westerly route, about 38 miles from Jawhār to Dāhānu Road on the Bombay, Baroda, and Central India Railway, crosses the Kasātwādi and Deng passes by a metalled road built by the Government in 1872–4. The road has recently been farther extended by the State eastwards to Kelghar. Towards the south and west the country is in some places level; but the rest of the territory is elevated, and consists of the rocky and forest-covered tract that everywhere lies at the western foot of the Ghāts. Though its many fertile valleys contain numerous streams, their waters are not used for irrigation. The chief streams are the Deharji, the Surya, the Pinjali, and the Vāgh. Except in the southern *mahāl* of Malvāda, the water-supply fails as the hot season advances. Between June and October the rainfall is heavy, the average for the year being 120 inches. From the close of the rainy season till the end of December the air retains a considerable degree of moisture. In January and February the dryness and heat increase, followed from March to June by a tolerably warm season. The temperature rises to 106° in May and falls to 66° in January. During the greater part of the year the climate is malarious and unhealthy.

Up to 1294, the period of the first Muhammadan invasion of the Deccan, Jawhār was held by a Vārli, not a Kolī, chief. The first Kolī chief, Paupera, otherwise known as Jayaba, obtained his footing in Jawhār by a device similar to that of Dido, when she asked for and received as much land as the hide of a bull would cover. The Kolī

chief cut his hide into strips, and thus enclosed the territory of the State. Jayaba was succeeded by his son Nīm Shāh, on whom the king of Delhi conferred the title of Rājā. So important was this event in the history of Jawhār that June 5, 1343, the day on which the title was received, has been made the beginning of a new era, which is still used in public documents. The Ahmadābād Sultāns, who held the sea-coast of Thāna, interfered but little with the inland portion of Jawhār: but with the Portuguese a continuous struggle was waged, which lasted until the decay of the latter, when the Jawhār chief, aided by alliances with the Mughal generals, managed to plunder the Portuguese possessions in the North Konkan and extend his territory from Bassein to Dāhānu. Subsequently the Marāthās, who attacked the State on several occasions, deprived the chief of part of his territory and forced him to pay tribute. The succession to the chiefship follows the rule of primogeniture; a *sanad* granting the right of adoption on failure of natural heirs was granted in 1890. Except the *nazarāna*, or succession fee in case of adoption, the Rājā pays no tribute to Government.

Since 1872 the population of the State has increased by 27 per cent According to the Census of 1901, the population was 47,538, of whom 47,007 were Hindus and 471 Muhammadans, the density being 153 persons per square mile. The State contains 108 villages, the only important one being that from which the State takes its name, situated in 19° 56′ N. and 73° 16′ E., with 3,567 inhabitants. Jawhār village is healthy and fairly cool, standing 1,500 feet above sea-level. The only place of interest in the State is the ruined fort of Bhopatgarh, about 10 miles south-east of Jawhār village.

The soil, except in the level tracts, is stony and unsuited for the better class of crops. Of the total area, 69 square miles are under forest and 58 are uncultivable, 171 square miles are cultivable, and 159 were cropped in 1903–4. Besides timber, the country yields rice to a limited extent and the coarser grains abundantly. The State escaped the famine that affected the rest of the Presidency in 1899–1902, but it suffered rather severely from the depredations of locusts in 1903–4. The export trade consists of teak, rice, and *nāgli*. Good building stone is found.

Jawhār is under the political control of the Collector of Thāna. The chief decides Sessions cases and hears appeals, and has power to try his own subjects for capital offences. The land is held to belong to the State, but so long as the owner pays his rent he cannot be ousted. The land revenue formerly varied in different parts of the State, but the settlement, completed in 1887–8, has fixed rates per acre varying from 2½ annas to Rs. 5½. The revenue of the State in 1903–4 was about 1·7 lakhs, of which Rs. 50,000 accrued from land, Rs. 29,000 from excise, and Rs. 3,000 from forests. The expenditure amounted to

over one lakh. The State pays no tribute, and the levy of transit dues was abolished in 1881. Control over opium has been ceded to the British, to whom also the excise arrangements are farmed. No military force is maintained. The police number 45. The State possesses two schools, with an average daily attendance of 132 pupils. The State dispensary, opened in 1878, annually treats 3,000 patients. About 1,500 persons are annually vaccinated in the State.

Jaynagar Village.—Village in the Madhubanī subdivision of Darbhangā District, Bengal, situated in 26° 35′ N. and 86° 9′ E., a few miles south of the Nepāl frontier, and a little east of the river Kamlā. Population (1901), 3,551. The village contains a mud fort attributed to Alā-ud-dīn, king of Bengal (1493–1518), and said to have been constructed to resist the incursions of the hill tribes. Near the fort is an encampment made by the British during the Nepāl War.

Jaynagar Town.—Town in the head-quarters subdivision of the District of the Twenty-four Parganas, Bengal, situated in 22° 11′ N. and 88° 25′ E., 31 miles south of Calcutta and 6½ miles by water from Magrā Hāt station on the Eastern Bengal State Railway. Population (1901), 8,810. Jaynagar was constituted a municipality in 1869. The average income and expenditure during the decade ending 1901–2 were Rs. 6,100. In 1903–4 the income was Rs. 7,600, mainly from a tax on persons (or property tax); and the expenditure was Rs. 7,300.

Jech Doāb.—*Doāb* in the Punjab. See CHAJ DOĀB.

Jedcherla.—Former *tāluk* in the north of Mahbūbnagar District, Hyderābād State, with an area of 946 square miles. The population in 1901, including *jāgīrs*, was 96,886, compared with 96,106 in 1891. The land revenue in 1901 was Rs. 80,000. In 1905 the *tāluk* was divided between Mahbubnagar, Pargi, and Kalvakurti. The *jāgīr tāluk* of Changomal lies to the south, with a population of 12,480 and 22 villages, and an area of about 106 square miles. It has now been transferred to the Pargi *tāluk*.

Jehlam.—District, *tahsīl*, river, and town in the Punjab. See JHELUM.

Jejuri.—Town in the Purandhar *tāluka* of Poona District, Bombay, situated in 18° 16′ N. and 74° 9′ E., on the Southern Mahratta Railway. Population (1901), 2,871. It is a place of Hindu pilgrimage. The municipality was established in 1868, to take charge of the sanitary arrangements during the religious fairs to which the village owes its importance. The fairs are in honour of the god Khandoba. A pilgrim tax is levied for four months, from about December to April. The average income during the decade ending 1901 was Rs. 5,000. In 1903–4 the income was Rs. 4,700. The town contains a dispensary and a school, managed by the Poona Native Institution, with 182 boys and 9 girls.

Jelep La.—Pass in the Chola range of the Himālayas, situated in 27° 22′ N. and 88° 53′ E., leading from Sikkim State, Bengal, into the Chumbi valley of Tibet. Height, 14,390 feet above sea-level. The Jelep pass forms the principal route by which Tibetan trade enters British India, and carries about half of the total registered trade between India and Tibet.

Jellālābād.—Province and town in Afghānistān. *See* JALĀLĀBĀD.

Jellasore.—Village in Balasore District, Bengal. *See* JALESWAR.

Jesar.—Petty State in REWĀ KĀNTHA, Bombay.

Jessore District (*Yasohara*).—District of the Presidency Division, Bengal, lying between 22° 47′ and 23° 47′ N. and 88° 40′ and 89° 50′ E., with an area of 2,925 square miles. It is bounded on the north and west by Nadiā District; on the south by Khulnā; and on the east by the Madhumatī and Bārāsia rivers, which separate it from Farīdpur.

Physical aspects.

Jessore forms the central portion of the delta between the Hooghly and the Meghnā estuary, and is an alluvial plain intersected by rivers and watercourses, which in parts of the south of the District spread out into large marshes. The river system was formerly supplied by the Padmā, and the rivers for the most part flowed across the District from the north-west to the south-east. The north-west of the District was gradually raised by their periodical inundations till their connexions with the Padmā silted up; and the rivers, with the sole exception of the Garai, which with its continuation the Madhumatī is still an important offshoot of that river, ceased to be running streams, their beds degenerating into stagnant marshes during the greater part of the year. The District, entirely a fluvial formation, is thus naturally divided into two parts: the thickly populated country to the north, now raised by continual deposits beyond the reach of the inundations by which it was previously affected, declining towards the south into swampy tracts, where the rivers are tidal and the only parts suitable for habitation are the high lands along their banks. The principal rivers, which are connected with one another by numerous cross-channels, are the GARAI and the MADHUMATĪ to the east, and proceeding from north to south, the KUMĀR, Nabagangā, Chitrā, Kabadak, BHAIRAB, and ICHĀMATI. The last-mentioned rivers, which were originally distributaries of the Padmā, have now largely silted up in their upper reaches, and are in many cases entirely cut off from their parent stream. The Kumār, a branch of the Mātābhānga, discharges into the Nabagangā at Māgura; it is also connected with the Madhumatī by the Little Bārāsia. The Nabagangā, also formerly an offshoot of the Mātābhānga, no longer gets any flood discharge from that river, and boat traffic is impracticable beyond Jhenida, while between Jhenida and Māgura it is navigable only for about three months in the year.

The silting-up process has extended as far south as Binodpur, below which it is navigable throughout the year. The Nabagangā formerly joined the Madhumatī near Lohāgarā, but the connexion has silted up and its waters now flow down the Bānkāna; this river divides into two branches at Patna, the eastern branch which flows into the Madhumatī being known as the Kālia or Gāngnī river, while the western branch continues to be called the Bānkāna. The Kabadak, formerly an offshoot of the Mātābhānga, has silted up in its upper portion, but is navigable below Kotchāndpur by large boats throughout the year. The Bhairab, which leaves the Kabadak on its left bank above Tāhirpur, has similarly silted up in its upper reaches, the channel above Jessore being practically only a line of marshes. The Majudkhāli Khāl brings down some of the waters of the Chitrā to the Bhairab at Simultala, and the Bhairab is also connected with the Chitrā by the Gobrā-Afrā Khāl. The Ichāmatī, which flows across the south-west corner of the District, is navigable in this part of its course throughout the year.

The District is covered by recent alluvial deposits, consisting of sandy clay and sand along the course of the rivers, and fine silt consolidating into clay in the flatter parts of the river plain, where beds of impure peat also occur. Sand is found in large quantities only along the banks and *chars* of the Madhumatī.

The stretches of low-lying land under rice cultivation afford a foothold for various marsh species, while the numerous ponds and ditches are filled with submerged and floating water-plants. Remarkable among these for its rarity, and interesting on account of its distribution to Europe on the one hand and Australia on the other, is the floating *Aldrovanda vesiculosa*. The edges of sluggish creeks are lined with large sedges and bulrushes, and the banks of rivers have a hedge-like scrub jungle. The sides of embankments and village sites, where not occupied by habitations, are densely covered with shrubberies of semi-spontaneous species, interspersed with clumps of planted bamboos and groves of *Areca*, *Moringa*, *Mangifera*, and *Anona*. The *babūl* (*Acacia arabica*) also grows in great abundance, and the banyan (*Ficus indica*), *pīpal* (*Ficus religiosa*), tamarind (*Tamarindus indica*), and mulberry reach a large size. The north and east of the District are dotted with numerous groves of date-palms (*Phoenix acaulis*) and many of the principal roads are lined with fine avenues of banyans, casuarinas (*Casuarina muricata*), and mulberry-trees. Waysides and waste places are filled with grasses and weeds, usually of little intrinsic interest but often striking because of their distribution; many of them have been inadvertently introduced by human agency, and include European or African and American species. There are no forests in the District.

Leopards were formerly common, and wild hog are still very

numerous in some parts of the District. The latter do great damage to growing crops, especially to sugar-cane.

The mean temperature for the year is 74°. The mean minimum rises from 53° in January to 79° in June, at which point it remains constant until September; the mean maximum is highest (97°) in April. The annual rainfall averages 60 inches, of which 7 fall in May, 11·3 in June, 10·4 in July, 10·7 in August, and 7·7 in September.

The country once formed a portion of the old kingdom of Banga or Samatata, but the earliest traditions still current are associated with the name of Khānja Alī, who came to the District four and a half centuries ago. He obtained a *jāgīr* from the king of Gaur and made extensive clearances in the Sundarbans, where he appears to have exercised all the rights of sovereignty till his death in 1459. He left numerous mosques and tombs, but most of these are in Khulnā District. The next traditions are connected with Rājā Vikramāditya, one of the chief ministers of Daud Khān, the last king of Bengal, who obtained a grant in the Sundarbans and established a city to which he retired with his family and dependants. The vernacular name of the District is a corruption of Yasohara ('glory depriving,' as it is said to have robbed Gaur of its pre-eminence), the name given by Vikramāditya to his capital city, the site of which was at ISWARĪPUR in Khulnā District. Vikramāditya was succeeded by his son Pratāpāditya, the popular hero of the Sundarbans, who gained predominance over the twelve chiefs or Bhuiyās who then held the south and east of Bengal; he was eventually defeated and captured by Rājā Mān Singh, the Hindu leader of Akbar's armies in Bengal from 1589 to 1606. The name Jessore continued to attach itself to the estates which Pratāpāditya had possessed. The military governor, who had charge of them, and who was located at Mirzānagar on the Kabadak, was called the Faujdār of Jessore; and when the headquarters of the District were brought to Kasbā (where they now are), the name Jessore was applied to the town where the courts were located. Until 1786 the District was still nearly conterminous with Rājā Pratāpāditya's territories; but since that date large areas have from time to time been shorn away, and at the present day it covers barely one-half of its original area.

History.

After the fall of Rājā Pratāpāditya those of his *parganas* which were situated within the present area of this District were divided into three *zamīndāris*, that in the south being held by the Rājā of Jessore, known as the Chānchra Rājā, and that in the north by the Rājā of Naldānga, while the third, called the *zamīndāri* of Bhūshanā, fell into the hands of Rājā Sītā Rām Rai, concerning whom there are numerous legends in the north-east of the District. He was a *talukdār* of a village called Hariharnagar on the bank of the Madhumatī river, and is said to have

been deputed by the Nawāb of Dacca to collect his revenues; but as the revenues never went farther than Sītā Rām himself, the Nawāb sent an army against him and at length succeeded in capturing him about the year 1712. The ruins of Sītā Rām's palace and the various large tanks which he constructed are still to be seen at Muhammadpur.

The Rājās of Jessore or Chānchra trace their origin to Bhābeswar Rai, a soldier in the army of an imperial general, who conferred on him several *parganas* taken from Pratāpāditya. He died in 1588, and was succeeded by his son Mahtāb Rām Rai, who assisted Mān Singh against Pratāpaditya, and at the close of the war was allowed to retain the *parganas* made over to his father. To him succeeded Kandarpa Rai, who added considerably to the estate; and he in turn was followed by Manohar Rai (1649-1705), who is regarded as the principal founder of the family. The estate, when he inherited it, was of moderate size; but he acquired one *pargana* after another, until, at his death, the property was by far the largest in the neighbourhood. The estate then went to Krishna Rām, who was followed by Sukh Deb Rai (1729-45). The latter divided the estate into a three-quarters share and a one-quarter share, the former being called the Isafpur and the latter the Saidpur estate. The latter was given by Sukh Deb to his brother Syām Sundār, who died without issue, leaving it vacant. It was afterwards conferred by the East India Company upon a landholder in exchange for certain lands near Calcutta. The possessor of the property in 1814, Hājī Muhammad Mohsin, made over the estate in trust for the Hooghly Imāmbāra, which has ever since enjoyed its revenues. Isafpur estate was inherited in 1764 by Srī Kānta Rai, who sustained such heavy losses about the time of the Permanent Settlement, that his family was left destitute and forced to fall back upon the bounty of the Government. His grandson, Baradā Kānta, who succeeded in 1817, being a minor, the property was administered by the Court of Wards, and its value greatly increased. In 1823 the Government added to his estate the confiscated *pargana* of Sāhos, and subsequently bestowed on Baradā Kānta the title of Rājā Bahādur in recognition of services rendered by him during the Mutiny. He died in 1880, leaving three sons, the eldest of whom succeeded to the title and estates.

The revenue or financial administration (*dīwānī*) was transferred to the East India Company with that of the rest of Bengal in 1765: but it was not until 1781, when a court was opened at Murāli near Jessore town, that British administration was completely established in the District. The first Judge and Magistrate was Mr. Henckell, who founded a market still known as Henckellganj, and was the first to urge upon the Government the scheme of Sundarbans reclamation (*see* SUNDARBANS). Mr. Rocke, who succeeded him in 1789, trans-

-ferred the civil station to Jessore, where it still remains. Among the Collectors of Jessore was Mr. R. Thackeray, father of the novelist, who acted in that capacity for a few months in 1805. The boundaries of the District have undergone frequent changes: extensive areas on the east and south have been taken away to form the Districts of Faridpur and Khulnā, while additions have been made from the Twenty-four Parganas and Nadiā on the west.

Population.

The population of the present area was returned at 1,451,507 in 1872 and 1,939,375 in 1881, but it fell to 1,888,827 in 1891 and 1,813,155 in 1901. The apparent increase in 1881 was probably caused by the inaccuracy of the first Census; the subsequent decline is due to the extremely insanitary conditions which prevail. The banks of the rivers are higher than the country behind them, and depressions are thus formed between the main watercourses. The drainage of these was always difficult, and it has now become almost impossible owing to the silting up of the mouths of the rivers and drainage channels. Stagnant swamps are thus formed, while good drinking-water is scarce, and the homesteads are enveloped in dense jungle. It was in this District that cholera appeared in a violently epidemic form in 1817. Here, too, twenty years later, originated that terribly fatal kind of fever subsequently known as 'Nadiā,' and then as 'Burdwān fever,' which decimated the population of the country from Jessore westwards as far as the Bishnupur subdivision of Bānkura. The first known outbreak occurred near Muhammadpur among a body of some 600 prisoners working on the road from Jessore to Dacca. In 1843 the epidemic seemed to disappear, but it again broke out in 1846. At the present time this malignant type of fever is not noticeable; but a milder form is very prevalent, which is relentlessly at work, destroying many and sapping the vitality of the survivors and reducing their fecundity. Cholera is also prevalent, and small-pox, dysentery, and diarrhoea claim many victims.

The chief statistics of the Census of 1901 are shown below:—

Subdivision.	Area in square miles.	Number of Towns.	Number of Villages.	Population.	Population per square mile.	Percentage of variation in population between 1891 and 1901.	Number of persons able to read and write.
Jessore	889	1	1,488	561,242	631	− 5.6	37,616
Jhenida	475	1	864	304,899	642	− 2.3	14,893
Māgura	425	...	934	277,381	653	− 8.5	12,538
Narāl	487	...	810	352,281	723	+ 1.1	24,126
Bangaon	649	1	798	317,352	489	− 3.9	15,929
District total	2,925	3	4,894	1,813,155	620	− 4.0	105,102

The three towns are JESSORE, the head-quarters, KOTCHĀNDPUR, and MAHESPUR; but they are all small (only 1 per cent. of the population being urban), and have all lost ground since 1891, though Kotchāndpur has a considerable trade. The population is densest in the east, where the soil is most fertile and still receives occasional deposits of silt, and most scattered in the Bangaon subdivision to the west. The decadence already referred to is most marked in the country running west and south-west from the Muhammadpur *thāna* on the eastern boundary, the centre of both epidemic cholera and of the 'Burdwān fever.' This unhealthy zone stretches eastwards and northwards beyond the Jessore boundary, and includes the north-western part of Farīdpur and a small area in the north-west of Khulnā. There is little migration except to and from the surrounding Districts. The language of the District is Bengali, the dialects spoken being the Eastern or Musalmānī, and Central Bengali. Of the population, 61 per cent. are Muhammadans and 39 per cent. Hindus.

The majority of the Muhammadans are Shaikhs (984,000), who are probably in the main the descendants of converts from the aboriginal Namasūdras. This is the most numerous Hindu caste (175,000); but Kāyasths (55,000), Muchīs (48,000), Kaibarttas (45,000), Brāhmans (39,000). Mālos (27,000), Ahīrs and Goālās (26,000), and Sāhās (24,000) are also well represented. A noted colony of Kulin Brāhmans resides at LAKSHMĪPĀSA. Agriculture supports 71 per cent. of the population, industries 15 per cent., commerce 0·6 per cent., and the professions 1·9 per cent.

Christians in 1901 numbered 912, of whom 867 were natives. The Baptist Missionary Society, the London Missionary Society, and a Roman Catholic mission are at work in this District; of these the Roman Catholic and Baptist missions have secured most converts.

Agriculture.

The soil is fertile, but the northern part no longer receives the annual deposit of silt which used to enrich it. Here *aus* or autumn rice is the principal staple, but tobacco, sugar-cane, and various cold-season crops are also grown. The low country in the south is chiefly under rice cultivation, *āman* or winter rice predominating. Date-palms are largely grown for the manufacture of sugar. They commence bearing when they are about seven years old, and continue to bear for about twenty five years. The juice is collected from November to February, the yield of *gur* being about 15 to 20 seers per tree. Indigo was formerly extensively cultivated; but a large number of factories were closed in consequence of the disturbances of 1859–61 (of which some account will be found in the article on NADIĀ DISTRICT), and its cultivation has now almost entirely disappeared. Cultivation has suffered much in the Jhenida subdivision from the drying up of the rivers; in the Māgura subdivision the area

under *āman* rice is contracting owing to deficient floods, but that of *aus* and jute is extending. There is no artificial irrigation.

The principal agricultural statistics for 1903-4 are shown below, areas being in square miles:—

Subdivision.	Total.	Cultivated.	Cultivable waste
Jessore	889	506	24
Jhenida	475	309	15
Māgura	425	268	16
Narāl	487	389	18
Bangaon	649	389	14
Total	2,925	1,861	87

Of the cultivated area it is estimated that 168 square miles are twice cropped. Rice is grown on 1,391 square miles. *Aman* rice is sown in April and May, and reaped in November or December; the land for this crop is usually ploughed four times before sowing, and except in marsh lands the young shoots are transplanted in July. For *aus* rice the ground is ploughed five or six times and the seed is sown broadcast; the land on which it is grown generally yields a cold-season crop as well. *Boro* rice land is hardly ploughed at all; the seed is scattered broadcast in the marshes as they dry up, and the shoots are transplanted when a month old, and sometimes again a month later. Other crops grown are gram (26 square miles), pulses, &c.. (198 square miles), oilseeds, including mustard, linseed, and *til* (*Sesamum indicum*) (162 square miles), sugar-cane (15 square miles), jute (48 square miles), and tobacco (32 square miles). On the occasion of the scarcity in the Māgura subdivision in 1897-8, Rs. 64,000 was advanced under the Agriculturists' Loans Act.

The cattle are poor. There are no regular pasture-lands, but cattle are grazed on the banks of marshes and in the date-palm orchards.

Trade and communications.

Coarse cotton cloths are woven on hand-looms throughout the District. Mats and baskets, made by the Muchīs and Doms, have a large local sale. Cart-wheels are extensively made; those prepared in the Jhenida subdivision are largely sold at Bāduriā in the Twenty-four Parganas. Lime for white-washing and for eating with *pān* is prepared by Baitis from shells collected in the marshes by women of the Bāgdi caste. Gold and silver ornaments and iron and brass-ware are manufactured. Lac bracelets are made at Lohāgarā by immigrants from the United Provinces. The date-palm sugar industry is of local importance, but is gradually declining in spite of the imposition of countervailing duties on imported sugar; in 1900-1 there were 117 factories, with an out turn of 235,000 maunds, valued at 15·15 lakhs.

The principal imports are rice and *sundri* wood (*Heritiera littoralis*) from Backergunge and the Sundarbans; cotton piece-goods, cotton twist, salt, kerosene oil, flour, and potatoes from Calcutta; and coal from Burdwān. The principal exports are paddy, pulses, jute, linseed, tamarind, coco-nuts, unrefined sugar, oil-cake, hides, earthen jars, cart-wheels, bamboos, bones, betel-nuts, timber, *ghī*, and fish, chiefly to Backergunge and Calcutta. Except in the Jhenida subdivision, where there is a large amount of cart traffic, most of the trade is carried by boats and is in the hands of Sāhā and Teli dealers; but considerable quantities of jute and bamboos are sent by rail to Calcutta. Kotchāndpur is the largest and Kesabpur the second largest centre of trade; Naldānga, Chaugācha, Māgura, Jhenida, Chāndkhāli, Khājura, and Binodpur are important trading villages.

The central section of the Eastern Bengal State Railway connects Calcutta with Jessore, the head-quarters station, whence it runs south-east to Khulnā. This line is connected with the eastern section of the same railway by a branch from Bangaon to Rānāghāt. Excluding village tracks, the District contains 581 miles of roads, of which 117 miles are metalled; the most important are the Provincial road from Jessore to Calcutta, and those connecting Jessore with Kesabpur and Jhenida, Kālīganj with Hansada, and Jhenida with Borai and Māgura. Road communication is best in the higher land in the head-quarters, Jhenida, and Bangaon subdivisions, where the silting up of the water communications has rendered them more necessary than elsewhere. There are 45 ferries.

The rivers are in many cases no longer navigable in their upper reaches except during the rains, but lower down they are tidal, and carry large boats and small steamers throughout the year. Steamer services ply on alternate weekdays from Khulnā up the Athārabānki and Madhumatī as far as Muhammadpur: daily from Khulnā by Kālia to Lohāgarā, and by the Majudkhāli-Chitrā-Ghorākhāli Khāl and the Nabagangā to Binodpur throughout the year and during the rains as far as Māgura; and on alternate weekdays from Kapilmuni up the Kabadak to Kotchāndpur, feeding the railway at Jhingergācha. During the rains boats ranging up to 2,000 maunds carry jute to the stations on the railway, while some go direct to Calcutta. Large passenger boats ply on the Nabaganga and Chitrā rivers and on the channels connecting them with the railway stations.

There has been no famine in Jessore in recent times, but there was some scarcity in the Māgura subdivision in 1897, when rice sold at $7\frac{1}{2}$ seers to the rupee. Advances were made under the Agriculturists' Loans Act, but Government relief was only necessary on a small scale.

For administrative purposes the District is divided into five subdivi-

sions, with head-quarters at JESSORE, JHENIDA, MĀGURA, NARĀL, and BANGAON. The Magistrate-Collector is assisted at head-quarters by a staff of five Deputy-Magistrate-Collectors; the subdivisions of Māgura, Narāl, and Bangaon are in charge of Deputy-Magistrate-Collectors, while the subdivisional officer of Jhenida is usually a Joint-Magistrate. The subdivisional officers of Bangaon, Jhenida, and Narāl are occasionally assisted by Sub-Deputy-Collectors.

Administration.

The civil courts subordinate to the District and Sessions Judge, who is also Judge of Khulnā, are those of a Sub-Judge and four Munsifs at Jessore, three Munsifs at Narāl, and two each at Jhenida, Māgura, and Bangaon. The total number of criminal courts is twenty-three, including an Additional Sessions Judge, who is also employed for part of the year at Khulnā. The District had at one time an unenviable reputation for dacoity, but this is no longer the case. Petty riots arising out of land disputes are common.

At the settlement of Todar Mal the greater part of the District was included in *sarkār* Khālifatābād, but a small portion in the north-east formed part of *sarkār* Muhammadābād or Bhūshanā. The District was subsequently divided chiefly among the great *zamīndāris* of Isafpur, Saidpur, and Muhammadshāhi. The revenue administration was assumed by the British in 1772, but a Collectorate was not established till 1786, prior to which date the land revenue head-quarters were at Calcutta. Owing to the continuous changes of fiscal jurisdiction, comparison of the land revenue with that formerly paid is impossible. The present incidence amounts to only R. 0-11-2 per cultivated acre. Subdivision of property has gone on rapidly under British rule, and there are now 2,444 permanently settled estates, in addition to 70 small estates which are temporarily settled, and 85 held direct by Government. Sub-infeudation of holdings has also been carried on to an enormous extent. The average rate of rent is Rs. 2-15-4 per cultivated acre, but the amount varies according to the crops for which the land is suitable. The rates for rice land range from Rs. 1-8 to Rs. 12 per acre, for jute from Rs. 2-10 to Rs. 2-13, pulses and oilseeds from Rs. 3 to Rs. 4-8, sugar-cane from Rs. 3 to Rs. 7-8, vegetables from Rs. 3 to Rs. 9, date-palms from Rs. 3-3 to Rs. 9, betel and coco-nut palms from Rs. 10 to Rs. 16, and *pān* gardens from Rs. 8 to Rs. 20, while homestead land fetches Rs. 10 to Rs. 15, and garden land Rs. 10 to Rs. 20 per acre. Rents are lowest in the less fertile Bangaon subdivision, where the maximum rate for rice lands is Rs. 3 per acre. The average quantity of land held by each ryot is 8 acres. The *utbandi* system (*see* NADIĀ DISTRICT) prevails in some parts of the District; *korfā* ryots, who hold land under a middleman, are numerous.

The following table shows the collections of land revenue and of total revenue (principal heads only), in thousands of rupees:—

	1880-1.*	1890-1.	1900-1.	1903-4.
Land revenue	10,84	8,69	8,60	8,54
Total revenue	18,88	15,42	16,72	16,89

* In 1880-1 the District did not include the subdivision of Bangaon, which was subsequently transferred to it from Nadiā.

Outside the municipalities of JESSORE, KOTCHĀNDPUR, and MAHESPUR, local affairs are managed by the District board, with subordinate local boards in each subdivision. In 1903-4 the income of the District board was Rs. 1,70,000, of which Rs. 99,000 was derived from rates; and the expenditure was Rs. 1,68,000. Schemes for the reclamation of the river Bhairab, a standing source of unhealthiness, and for opening the Muchikhāli Khāl are under contemplation. The Hallifax Canal, one mile in length, excavated in 1901, connects the Madhumatī and Nabagangā rivers in the Narāl subdivision.

The District contains 20 police stations and 10 outposts; and in 1903 the force subordinate to the District Superintendent consisted of 5 inspectors, 43 sub-inspectors, 36 head constables, and 421 constables (including 38 town *chaukīdārs* and water police). In addition, there is a rural force of 245 *daffadārs* and 3,839 *chaukīdārs*. The District jail at JESSORE has accommodation for 370 prisoners, and subsidiary jails at each of the subdivisional out-stations for 106.

The District is less advanced in respect of education than would be expected from its proximity to Calcutta, and in 1901 only 5·8 per cent. of the population (11 males and 0·5 females) could read and write. The number of pupils under instruction was 34,000 in 1892-3 and 35,000 in 1900-1. In 1903-4, 43,000 boys and 4,000 girls were at school, being respectively 31·1 and 2·6 per cent. of the children of school-going age. The number of educational institutions, public and private, in that year was 1,367, including an Arts college, 85 secondary, 1,255 primary, and 26 special schools. The expenditure on education was 2·1 lakhs, of which Rs. 23,000 was met from Provincial funds, Rs. 41,000 from District funds, Rs. 600 from municipal funds, and 1 lakh from fees. The principal educational institutions are the Victoria College at Narāl and high schools at Kālia, Māgura, and Jessore town.

In 1903 the District contained 12 dispensaries, of which 5 had accommodation for 30 in-patients. At these the cases of 62,000 out-patients and 500 in-patients were treated during the year, and 2,000 operations were performed. The expenditure was Rs. 19,000, of which Rs. 1,700 was met by a Government subvention, Rs. 7,000 from Local and Rs. 3,000 from municipal funds, and Rs. 8,000 from subscriptions.

Vaccination is compulsory only in municipal areas. During 1903–4 the number of persons successfully vaccinated was 54,000, representing 29·9 per 1,000 of the population.

[Sir W. W. Hunter, *Statistical Account of Bengal*, vols. i and ii (1875); Sir J. Westland, *Report on Jessore* (Calcutta, 1874).]

Jessore Subdivision.—Head-quarters subdivision of Jessore District, Bengal, lying between 22° 47′ and 23° 28′ N. and 88° 59′ and 89° 26′ E., with an area of 889 square miles. The subdivision is an alluvial tract, containing some large marshes and traversed by streams which have now silted up except in the lower reaches. The population in 1901 was 561,242, compared with 594,835 in 1891, the density being 631 persons per square mile. It contains one town, JESSORE (population, 8,054), the head-quarters; and 1,488 villages. The principal marts are at BASANTIA, Jessore town, JHINGERGĀCHA, and KESABPUR.

Jessore Town.—Head-quarters of Jessore District, Bengal, situated in 23° 10′ N. and 89° 13′ E., on the Bhairab river, and on the Eastern Bengal State Railway, 74 miles from Calcutta and 35 miles from Khulnā. Population (1901), 8,054. The name was applied to the village of Kasbā when it was made the head-quarters of the District. The villages of Purāna, Kasbā, Bāgchhar, Sankarpur, and Chānchra lie within the municipal limits. The last contains the residence of the Rājās of Chānchra or Jessore (*see* JESSORE DISTRICT), and the remains of a rampart and fosse by which it was once surrounded are still visible. Jessore was constituted a municipality in 1864. The income during the decade ending 1901–2 averaged Rs. 19,000, and the expenditure Rs. 18,000. In 1903–4 the income was Rs. 22,000, of which Rs. 10,000 was derived from a tax on houses and lands, and Rs. 5,000 from a conservancy rate; the expenditure was Rs. 21,000. The town possesses the usual public offices, including criminal, revenue, and civil courts, the District jail, a church, a dispensary with 16 beds, a public library, and a high school. The jail has accommodation for 370 prisoners; the industries carried on are brick-making, *surki* and *khoā* pounding, cane and bamboo work, and the manufacture of coir mats and jute string. There are three printing presses, and a weekly newspaper and two monthly magazines with a large circulation are published. Part of the town is provided with a filtered water supply, and it is proposed to extend this by the construction of large water-works.

Jetpur (Devli).—State in the Kāthiāwār Political Agency, Bombay, lying between 22° 36′ and 22° 49′ N. and 70° 35′ and 70° 51′ E., with an area of 94 square miles. The population in 1901 was 11,568, residing in 21 villages. The revenue in 1903–4 was Rs. 1,25,000, and the cultivated area 48 square miles. The State ranks as a fourth-class State in Kāthiāwār, but the present chief has the rank of a third-class chief. Jetpur is now held by twenty *tālukdārs*, descended from a

common ancestor, Nāja Desa; and the four most important States are shown below. Nāja Desa's two sons, Viro and Jeto, founded the Virāni and Jethāni subdivisions of Jetpur: and Viro had two sons who in their turn subdivided the Virāni estate into two parts, Oghad Virāni and Kānthad Virāni. The Jethāni estate was similarly again subdivided into Vikamshi Jethāni and Bhoko Jethāni. The four principal States now exercising third and fourth-class jurisdiction are:—

State.	Class.	Subdivision.
Jetpur (Devli) . . .	3rd class .	Bhoko Jethāni.
Jetpur (Vadia) . . .	" .	Kānthad Virāni.
Jetpur (Mulu Surag) . .	4th class .	Vikamshi Jethāni.
Jetpur (Nāja Kāla) . .	" .	Oghad Virāni.

Two different accounts are given of the acquisition of Jetpur: namely, that of the *Tārīkh-i-Sorath*, which says that the first Nawāb of Junāgarh, Bahādur Khān I, granted Jetpur to Vala Vira; and a tradition which says that Viro Nāja of Chital aided the Valas of Bagasra in their feud with Vaijo Khasia of Mitiala, and that Vala Sāmant of Bagasra was slain in the battle. In consideration of Viro's aid the Valas of Bagasra gave him Jetpur. These Bagasra Valas acquired their share in Jetpur from the Khadia Baloch, who received it from the local Muhammadan governors of former times. Subsequently Jetpur was conquered from Champrāj, the great grandson of Jetha Nāja, by Shams Khān, a Musalmān *sardār*. The *tāluka* remained in an unsettled state for a long time, but in course of time Champrāj's descendant restored it to its former position

Jetpur (Vadia).—State in the Kāthiāwār Political Agency, Bombay situated in about 21° 40′ N. and 71° 53′ E., with an area of 72 square miles. The population in 1901 was 10,330, residing in 17 villages. The revenue in 1903-4 was Rs. 1,30,000, and the cultivated area 43 square miles. The State ranks as a third-class State in Kāthiāwār. For history see JETPUR (DEVLI)

Jetpur (Mulu Surag). State in the Kāthiāwār Political Agency, Bombay, lying between 21° 36′ and 21° 49′ N. and 70° 36′ and 70° 50′ E., with an area of 25 square miles. The population in 1901 was 6,728, residing in 16 villages. The revenue in 1903–4 was Rs. 60,000, and the cultivated area 20 square miles The State ranks as a fourth-class State in Kāthiāwār. For history see JETPUR (DEVLI).

Jetpur (Nāja Kāla or Bilkha).—State in the Kāthiāwār Political Agency, Bombay, lying between 21° and 21° 23′ N. and 70° 35′ and 70° 57′ E., with an area of 72 square miles. The population in 1901 was 10,366, residing in 24 villages. The revenue in 1903–4 was

Rs. 1,75,000, and the cultivated area 52 square miles. The State ranks as a fourth-class State in Kāthiāwār. For history see JETPUR (DEVLI).

Jetpur Town.—Fortified town in the State of the same name, Kāthiāwār, Bombay, situated in 21° 45′ N. and 70° 48′ E., on the western bank of the Bhādar river, 40 miles north-east of Porbandar. Population (1901), 15,919. Jetpur is a flourishing town on the Bhavnagar-Gondal-Junāgarh-Porbandar Railway, well equipped with public buildings. A fine bridge has been thrown across the Bhādar river about a mile north of the town.

Jeur.—Market town in the District and *tāluka* of Ahmadnagar, Bombay, situated in 19° 18′ N. and 74° 48′ E., about 13 miles north east of Ahmadnagar, on the Toka road. Population (1901), 5,005. The town is enclosed by a ruined wall and has a strong gateway with a paved entrance. Close by, perched on a high hill, is a group of three temples, one of them with an inscription dated 1781. Two miles north of Jeur, at the top of a beautiful ravine, down which winds the Nevāsa road, is the Imāmpur travellers' bungalow. The bungalow is an old mosque and stands in a large grove with excellent shade.

Jewar.—Town in the Khurja *tahsīl* of Bulandshahr District, United Provinces, situated in 28° 7′ N. and 77° 34′ E., 20 miles west of Khurja. Population (1901), 7,718. In the eleventh century Jādon Rājputs, invited from Bharatpur by the Brāhmans of Jewar, settled in the town and expelled the Meos. The well-known Begam Sumrū held Jewar till her death in 1836, when it lapsed to Government. The town lies among the ravines and broken ground on the edge of the high land above the Jumna, and is well drained. The market was rebuilt in 1881, and is now lined with good brick-built shops. Jewar is administered under Act XX of 1856, with an income of about Rs. 2,000. There is a small manufacture of cotton rugs and carpets, and a weekly market is held. The town contains a prosperous agricultural bank, a middle school with 120 pupils, and a small primary school for girls, besides a branch of the American Methodist Mission.

Jeylap.—Pass in the Himālayas. *See* JELEP LA.

Jeypore.—Political Agency, State, and city in Rājputāna. *See* JAIPUR.

Jeypore Estate.—Estate occupying the whole of the northern part of Vizagapatam District, Madras. It embraces practically all the Agency or hill tracts therein, and consists of the *tahsīls* of Nowrangapur, Jeypore, Koraput, Malkangiri, Bissamcuttack, and Rāyagada, and the major portion of Padwa, Pottangi, and Gunupur. The residence of the Rājā is at Jeypore town.

The *zamīndāri* is divided into two portions, east and west, by the Kālāhandī State of Bengal. The western portion forms the Govern ment subdivision, of which the head-quarters are at Koraput, while

the eastern is under the jurisdiction of the Special Assistant-Agent at Pārvatīpuram. Each portion has a separate river system, the western being drained by tributaries of the Godāvari, and the eastern by the Nāgāvali (or Lāngulya) and Vamsadhāra rivers and their affluents.

Various forms of under-tenure prevail within the estate. The proprietor of the subsidiary estate of Bissamcuttack holds his land on feudatory tenure; whole villages are leased out for a nominal rent to *mustājirs* or *muttahdārs*, who have in many cases the right to sell portions or the whole of their village without the sanction of the Rājā; while a large portion of the estate is leased out on *jerāyati* tenure direct to the cultivators.

Ethnologically we find that the aboriginal tribes have been overlaid by immigration. The Khonds and Savaras, who inhabit the wild tracts adjoining the Ganjām Māliahs (hills), retain their separate tribal characteristics and languages, but in other parts the customs and practices of the new-comers have, in many cases, been adopted. In Kotapad and Singapur, for instance, the earlier peoples have adopted the practice of burning their dead. On the other hand, the Meriah human sacrifice (*see* MĀLIAHS), which is supposed to be a purely Khond rite, spread among the immigrants and obtained so firm a hold that it had to be suppressed by force, a special agency being employed for that purpose until as late as 1861.

The ancestors of the present house of Jeypore were at one time retainers of the Gajapati kings of Orissa. In the fifteenth century its founder, Vināyaka Deo, whom tradition asserts to be descended from the Lunar race of Rājputs, married a daughter of the Gajapati king, who bestowed upon him the Jeypore principality. About the year 1652, when the founder of the VIZIANAGRAM family came to Chicacole in the train of the Golconda Faujdār, Sher Muhammad Khān, the present Jeypore family, descended from Vināyaka Deo, was in possession not only of the country comprised within the present limits of the estate, but of all the hill *zamindāris* at the base of the Ghāts. Jeypore subsequently became tributary to Vizianagram; but in 1794 the Madras Government granted the Jeypore ruler a separate *sanad* as a reward for his loyalty during their conflict with Vizianagram which ended with the battle of Padmanābham.

In 1803 the *peshkash* of the estate was fixed at Rs. 16,000 In addition, Rs. 13,666 is paid for the *pargana* of Kotpad, in lieu of the tax originally paid thereon to the State of Bastar in the Central Provinces.

In 1848, owing to the insubordination of members of the Rājā's family, some of the *tahsīls* of the estate were attached by Government. In 1855 troubles again broke out, and finally, in 1860, the Government was compelled to introduce a system of civil and criminal

administration. A Special Assistant-Agent was appointed, and subordinate magistrates and a strong police force were posted in the *zamīndāri*. Since then the estate has been free from disturbances, save for two unimportant outbreaks among the Savaras in 1865-6.

The present Rājā is Srī Vikrama Deo, on whom the title of Mahārājā was conferred as a special distinction in January, 1896. Under the existing system of administration continual progress is assured; and the recently constituted Forest department is opening out the immense timber resources of the estate, which includes the finest forest in Vizagapatam District.

Jeypore Tahsīl.—Agency *tahsīl* in Vizagapatam District, Madras, lying above the Ghāts, with an area of 1,016 square miles. The population in 1901 was 133,831, compared with 140,580 in 1891. They live in 1,213 villages. The chief town is Jeypore (population, 6,689), the residence of the Rājā of the JEYPORE ESTATE, and a centre of trade between the Central Provinces and the low country of the District. The demand for land revenue and cesses for the whole estate in 1903-4 was Rs. 26,000. The *tahsīl* is all *zamīndāri* land and is for the most part open and well cultivated, the Kolab river passing through the centre of it.

Jeysulmere.—State and town in Rājputāna. *See* JAISALMER.

Jhābua.—A guaranteed chiefship under the Bhopāwar Agency, Central India, lying between 22° 28′ and 23° 14′ N. and 74° 20′ and 75° 19′ E., with an area of 1,336 square miles. It is bounded on the north by Kushālgarh State in the Rājputāna Agency; on the south by Jobat State; on the east by Alī-Rājpur and Dhār; and on the west by the Pānch Mahāls District of Bombay. The State lies wholly in the mountainous region of Mālwā known as Rāth, which is formed by the branch of the Vindhyas that strikes northwards towards Udaipur and constitutes the western boundary of the Mālwā plateau. A succession of forest-clad ridges run generally north and south, traversed by numerous streams which flow into the Anās, a tributary of the Mahī. The climate throughout most of the State is subject to greater extremes than are met with on the more open land of the Mālwā plateau. The annual rainfall averages about 30 inches.

The State takes its name from the chief town, founded in the sixteenth century by a notorious freebooter, Jhabbu Naik, of the Labhānā caste. The present ruler is a Rāthor Rājput, descended from Bīr Singh, fifth son of Jodha, the founder of Jodhpur in Rājputāna. This branch of the family rose to favour at Delhi, and acquired Badnāwar in Mālwā in fief in 1584. Kesho Dās, son of Bhīmān Singh, who then held Badnāwar, was attached to the retinue of prince Salīm, who, on his accession as the emperor Jahāngīr, employed him to subdue the turbulent freebooters infesting the south-

western districts of Mālwā. After suppressing these gangs, Kesho Dās obtained possession of their lands. In 1607 he was invested with the insignia of nobility by the emperor, but died the same year, poisoned by his son and heir. From this time onwards the State was subjected to much internal disturbance, the confusion being greatly increased by the appearance of the Marāthās in 1722; and the next year the State was formally placed under the management of Holkar during the minority of the chief. In 1817 the revenues were merely nominal, owing principally to Marāthā oppression, though, singularly enough, Holkar left the collection and payment of the *chauth* or fourth part of the revenue which was his due to the Jhābua officials. During the settlement of Mālwā by Sir John Malcolm the State was guaranteed to the family. Rājā Gopāl Singh (1840–94), though only seventeen years of age at the time of the Mutiny, rendered good service in assisting the fugitives from Bhopāwar, in recognition of which he was presented with a *khilat* of Rs. 12,500 in value. In 1865, however, he permitted a prisoner confined under suspicion of theft to be mutilated, for which a fine of Rs. 10,000 was imposed and his salute discontinued for one year. Till 1870 the States of Indore and Jhābua exercised joint jurisdiction over the Thāndla and Petlāwad districts; but as this arrangement led to constant disputes, an exchange of territory was effected in 1871, by which Petlāwad was assigned to Indore, Thāndla remaining with Jhābua, which pays Rs. 4,350 a year to Indore in adjustment of revenue. The present chief, Udai Singh, succeeded by adoption in 1894, and has exercised administrative powers since 1898. The ruler bears the title of His Highness and Rājā, and receives a salute of 11 guns.

Population has varied at the last three enumerations: (1881) 92,938, (1891) 119,787, and (1901) 80,889. The large decrease during the last decade is accounted for by the severe losses incurred by the Bhīl population in the famine of 1899–1900. The density is 60 persons per square mile. Animists, chiefly Bhīls, number 58,428, or 72 per cent. of the total population, and Hindus 18,156, or 22 per cent. The Roman Catholic mission has a station at Thāndla, and native Christians numbered 73 in 1901. The chief tribes and castes are Bhīls, 29,200, who form 36 per cent. of the population; Bhilālas, 14,500, or 18 per cent.; Patlias, 8,700, or 10 per cent.; and Rājputs, 2,000, or 3 per cent. Agriculture supports 61 per cent. and general labour 8 per cent. The State contains 686 villages and 158 *bhīlpāras* (hamlets).

Land is divided locally into two sections: the Mahīdhāwa or land along the Mahī river, which is cultivable; and the Ghāta or hilly tract, of which the greater part of the State is composed, and which is of low fertility and incapable of irrigation. Of the total area, only 120 square miles, or 9 per cent., are under cultivation, and 4 square miles, or

3 per cent., are irrigated. Of the uncultivated area, 363 square miles, or 27 per cent. of the total area, are cultivable, and 440 square miles, or 33 per cent., are under forest, the remainder being uncultivable waste. Maize occupies 64 square miles, or 53 per cent. of the cultivated area; rice, 12 square miles; gram and wheat, 10 square miles each; *jowār*, 8 square miles; cotton, 34 square miles; and poppy, 2 square miles.

The mineral resources are probably considerable, but have not as yet been fully investigated. At present manganese is worked to a small extent in the Rambhāpur *pargana* by a Bombay firm, who pay a royalty of 4 annas per ton of ore exported. The ore is exported from Meghnagar station on the Ratlām-Godhra section of the Bombay, Baroda, and Central India Railway, to which a light tramway has been laid by the contractors.

The isolated and wild nature of the country makes any general development of commerce difficult. The main source of commercial profit is opium, which is exported to Ratlām.

The chief means of communication are through the Meghnagar, Bajranggarh, Amargarh, and Bhairongarh stations of the Ratlām-Godhra section of the Bombay, Baroda, and Central India Railway. In 1900 a metalled road was commenced by the British Government between Jhābua and the Meghnagar station. British post offices are maintained at Jhābua, Thāndla, Bajranggarh, Rānāpur, and Meghnagar.

The State is divided for administrative purposes into four *parganas*—Jhābua, Rambhāpur, Rānāpur, and Thāndla—each under a *tahsīldar*. Besides these *parganas*, managed directly by the State, eighteen families of nobles, the *Umraos*, hold fiefs extending over 946 square miles, or 71 per cent. of the total area, and pay a tribute of Rs. 5,000 to the Darbār, and Rs. 7,510 to Holkar.

The administration is carried on by the chief, assisted by the Dīwān and the usual departments, of which the medical and forest are superintended by the Agency Surgeon and the Forest officer, respectively. The chief exercises judicial powers intermediate between those of a District Magistrate and a Sessions Court, all serious cases being reported to the Political Agent. In cases of murder among the Bhīls, the Dārbar reports to the Political officer whether the case is one which can be dealt with by the local *panchāyat* (council of elders) or should be tried by the Political Agent. Appeals in criminal cases lie to the Dīwān and to the chief, with power of reference to the Political Agent. In civil matters the chief's decision is final.

The normal revenue of the State is 1·1 lakhs, excluding alienated lands (1·3 lakhs). Of this, Rs. 53,000 is derived from land, Rs. 13,000 from customs, Rs. 10,000 from excise, and Rs. 5,000 from tribute.

The chief heads of expenditure are Rs. 60,000 on general administration, Rs. 20,000 on the chief's establishment, Rs. 15,000 on collecting the land revenue, and Rs. 3,000 on medical.

The incidence of the land revenue demand is Rs. 1-4-0 per acre of cultivated land and 3 annas per acre on the total area. As in all Rājput States, much of the land has been alienated in *jāgīr* grants to members of the chief's family and others. These alienated territories comprise 56 per cent. of the total cultivated area, but pay only 3 per cent. of the total revenue. All rents are taken in cash, and since 1902 have been paid direct to the *tahsīldār*. Ordinary rates vary from Rs. 3-3-2 to Rs. 9 per acre. A higher rate, amounting sometimes to Rs. 24 an acre, is paid for irrigable land growing poppy and sugar-cane. In the hilly tract, the rates vary from a few annas to R. 1.

Opium is weighed at Jhābua, Thāndla, and Hanumāngarh before passing out of the State, and a duty of Rs. 5 is levied per chest of 40 lb.; when the poppy comes from the land of an *Umrao* Rs. 2 to Rs. 3 are taken by the State, the balance being received by the *Umrao*.

Copper coins were struck in Jhābua up to 1881, but discontinued after that date. The British rupee was made legal tender in 1893.

No regular troops are kept up, such irregulars as exist being used to assist the police. Two serviceable guns are used for firing salutes. The police were organized in 1901, and number 95 men under a chief inspector, besides 425 rural village police. The Central jail is at Jhābua town.

The first school was opened in 1854. There are now 17 public and private schools, of which one is the mission school at Thāndla, established in 1900. There are 283 pupils. In 1901 only 2 per cent. of the population (almost all males) were able to read and write. The State maintains three dispensaries—at Jhābua, Rānāpur, and Thāndla.

The town of Jhābua is situated in 22° 45′ N and 74° 38′ E., on the edge of a small lake called the Bahādur-Sāgar, 1,171 feet above sea-level. Population (1901), 3,354. The palace, which is surrounded by a mud wall with masonry bastions, stands on the north bank of the lake. The streets are narrow, steep, and winding. Beside the lake is the cenotaph of Rājā Ratan Singh (1832-40), who was killed by lightning when riding on an elephant in the Nīlkanth procession, during the Dasehra festival. The town is 11 miles from the Meghnagar station on the Godhra-Ratlām section of the Bombay, Baroda, and Central India Railway. It contains a State guesthouse, a dispensary, a British post office, a jail, and a school.

Jhajjar Tahsīl.—*Tahsīl* of Rohtak District, Punjab, lying between 28° 21′ and 28° 41′ N. and 76° 20′ and 76° 56′ E., with an area of 466 square miles. The population in 1901 was 123,227, compared with 119,453 in 1891. It contains one town, JHAJJAR (population, 12,227),

the head-quarters; and 189 villages, including GEORGEGARH, founded by George Thomas. The land revenue and cesses in 1903–4 amounted to 2·9 lakhs. The *tahsīl* is intersected in all directions by sand ridges which often rise to a considerable height. On the east the low-lying land used to be regularly flooded by the Sāhibi and Indori streams, and large swamps then formed in the depressions; but of recent years the volume of these torrents has diminished, and the country rarely remains flooded for any considerable period. The north of the *tahsīl* is a continuation of the plateau of Rohtak and Sāmpla, while in the south a few low rocky eminences lend variety to the landscape.

Jhajjar Town.—Head-quarters of the *tahsīl* of the same name in Rohtak District, Punjab, situated in 28° 36′ N. and 76° 40′ E., 21 miles south of Rohtak town and 35 miles west of Delhi. Population (1901), 12,227. The town was destroyed by Muhammad of Ghor and refounded by a Jāt clan. It was taken from the Nawābs of Farrukhnagar by the Jāt chieftain Sūraj Mal, and afterwards fell into the hands of Walter Reinhardt, husband of Begam Sumrū. Jhajjar was assigned to George Thomas in 1794, and on annexation in 1803 was granted to Nawāb Nijābat Khān. The estate was confiscated in 1857 owing to the disloyalty of the ruling chief, Abdur Rahmān Khān, who was hanged for his share in the Mutiny. Jhajjar became for a short time the head-quarters of a District of that name, which was abolished in 1860. The principal buildings are the old palace of the Nawābs and the new palace or Bāgh Jahānāra. The municipality was created in 1867. The income and expenditure during the ten years ending 1902–3 averaged Rs. 13,500 and Rs. 14,000 respectively. In 1903–4 the income amounted to Rs. 18,600, chiefly derived from octroi, and the expenditure to Rs. 13,800. The town is noted for its dyeing industry, and for the thin or 'paper' pottery produced. It has a considerable manufacture of muslins and woollen goods, and embroidery is also largely carried on. The municipality maintains a dispensary and an Anglo-vernacular middle school.

Jhālakāti.—Town in the head-quarters subdivision of Backergunge District, Eastern Bengal and Assam, situated in 22° 39′ N. and 90° 13′ E., at the junction of the Nalchiti river and the Jhālakāti Khāl. Population (1901), 5,234. Jhālakāti lies on the main steamer route between Barisāl and Calcutta, and is one of the most important markets in Eastern Bengal, the chief exports being rice and betel-nuts, and the imports salt, tobacco, oil, and sugar. A very large quantity of timber, especially *sundri* wood (*Heritiera littoralis*), cut in the Sundarbans, is sold here. There is an oil-mill with an annual out-turn estimated at Rs. 25,000. Jhālakāti was constituted a municipality in 1875. The income during the decade ending 1901–2 averaged Rs. 5,200, and the expenditure Rs. 5,000. In 1903–4 the income was Rs. 8,800,

mainly derived from a property tax and a conservancy rate; and the expenditure was Rs. 8,600.

Jhalawān.—A highland division of the Kalāt State, Baluchistān, comprising the country to the south of Kalāt as distinguished from Sarawān, the country to the north of that place, and lying between 25° 28′ and 29° 21′ N. and 65° 11′ and 67° 27′ E., with an area of 21,128 square miles. It is bounded on the north by the Sarawān country; on the south by the Las Bela State; on the east by Kachhi and Sind: and on the west by Khārān and Makrān. The boundary between the Jhalawān country and Sind was settled in 1853-4 and demarcated in 1861-2. Elsewhere it is still undetermined. An imaginary line drawn east and west through Bāghwāna divides the country into two natural divisions. To the north the general conditions are those of the upper highlands, and to the south those of the lower highlands of Baluchistān. The country has a gradual slope to the south, with valleys of considerable width lying among lofty mountain ranges. Among the more important valleys are Sūrāb with Gidar, Bāghwāna, Zahri, Khuzdār with Fīrozābād, Wad, Nāl, Sārūna, Jau, and the valley of the Mashkai river. The mountains comprise the southern portion of the CENTRAL BRĀHUI range, including the Harboi hills and the greater part of the KĪRTHAR and PAB ranges. On the west the Garr hills and their continuation southward separate the country from Khārān and Makrān; in the centre lie a number of more or less detached mountains, the chief of which are Dobānzil (7,347 feet), Hushtir (7,260 feet), Shāshān (7,513 feet), and Diā Khel (8,102 feet). The rivers include the HINGOL, the largest river in Baluchistān, with its tributaries the Mashkai and the Arra; the MŪLA, the HAB, and a portion of the PURĀLI. Among the less important streams may be mentioned the Karkh or Karu and the Sain, which debouch into the Kachhi plain near Jhal, and the Kolāchi or Gāj, which traverses the centre of the country. None of these rivers possesses a continuous flow of water throughout its course.

Physical aspects.

In the north of the country nummulitic limestone is met with. Farther south red and white compact limestone (upper Cretaceous) is very extensively distributed. Beds containing chert are of frequent occurrence. Igneous rocks occur near Nāl, and on the east are the Kīrthar, Nāri, and Gāj geological groups.

Vegetation is scanty except in the Harboi hills, on the north, where juniper and wild almond grow in abundance. Elsewhere olive and pistachio occur. In the south the little tree growth includes *Capparis aphylla*, *Prosopis spicigera*, two kinds of *Acacia*, and *Tamarix articulata*. The northern hill-sides are thickly covered with a scrub jungle of *Artemisia* and *Haloxylon Griffithii*. Tulips, irises, and other bulbous plants

appear in the spring. The grasses are of the orders *Bromus*, *Poa*, and *Hordeum*. Dwarf-palm (*Nannorhops Ritchieana*) grows in profusion in the lower hills. Pomegranates are the commonest trees in the gardens, but apricots, mulberries, and dates are also found.

Sind ibex and mountain sheep are the most common game, but their numbers are decreasing. Leopards and black bears are occasionally killed. Wild hog are met with in the Mashkai valley. 'Ravine deer' are common. A few grey and black partridge are to be found in Lower Jhalawān; *chikor* are numerous in the higher parts, and *sīsī* almost everywhere.

Upper Jhalawān possesses a climate resembling that of Quetta, moderate in summer and cold in winter, with well-marked seasons. The lower parts are pleasant in winter, but subject to intense heat in summer. At this time fever is very prevalent in places south of the Harboi range. Earthquakes frequently occur in the neighbourhood of Wad and Mashkai. The rainfall is scanty, and is received in the upper highlands in winter and in the lower parts in spring or summer.

History.

The country passed in the seventh century from the Rai dynasty of Sind to the Arabs, by whom it was known as Turān. Its capital was Khuzdār, which place was also the head-quarters of the Arab general commanding the Indian frontier. Kaikānān, probably the modern Nāl, was another place of importance. The Ghaznivids and Ghorids next held the country, and were followed by the Mongols, the advent of Chingiz Khān being still commemorated by the Chingiz Khān rock between Nichāra and Pandrān. With the rise of the Sūmra and Samma dynasties in Sind, the Jat aborigines of the country appear to have gained the ascendancy, but in the middle of the fifteenth century they were ousted by the Mīrwāris. Beginning from Nighār near Sūrāb, these founders of the Brāhui kingdom gradually extended their dominion over all the Jhalawān hills. For many years the country remained firmly attached to the Khāns of Kalāt; but the struggles which took place during Mīr Khudādād Khān's reign involved the Jhalawān tribesmen also and resulted in the strangling of their leader, Tāj Muhammad, Zarakzai. In 1869 Jām Mīr Khān of Las Bela, who had caused the people of Jhalawān to rebel under Nūr-ud-dīn Mengal, received a severe defeat in a battle near Khuzdār, when he lost seven guns. Owing to its remoteness from Quetta, the Jhalawān country did not come so quickly and completely under control after the British occupation as the Sarawān country; and an outbreak which began in 1893 under the leadership of Gauhar Khān, the Zahri chief, simmered till 1895, when it was put down by the Kalāt State troops at the fight of Garmāp, in which both Gauhar Khān and his son lost their lives.

The country is comparatively rich in archaeological remains. They include many *gabrbands* or embankments of the fire-worshippers; a

curious vaulted burial chamber cut in the slope of the hill near Pandrān; and several tombs which indicate a system of superterrene burial. Interesting earthen vessels, and stones bearing Kufic inscriptions, have been excavated from the numerous mounds in the country.

Jhalawān contains no large towns and only 299 permanent villages. KHUZDĀR is the head-quarters station. Most of the people live in blanket tents or mat huts. The inhabitants, the majority of whom are Brāhuis with here and there a few Baloch, Jats, and Loris, number (1901) 224,073, or about 11 persons to the square mile. They include the direct subjects of the Khān, such as Kūrds, Nighāris, Gazgis, and Nakībs, who cultivate lands in the Khān's *niābats*; and tribal units. The principal tribes are the Zahri (49,000), the Mengal (69,000), the Muhammad Hasni (53,000), and the Bīzanjau (14,000). Among minor tribal groups may be mentioned the Sājdi, Rodeni, Rekizai, Gurgnāri, Sumalari, Kambrāni, Mīrwāri, and Kalandarāni. The leading chief of the Jhalawān tribes belongs to the Zarakzai clan of the Zahri tribe. A few Hindus carry on the trade of the country. Most of the people speak Brāhuī; a few speak Sindī; the remainder, especially on the south-west, Baluchī. The majority of the people are Sunni Muhammadans, but some are Zikris, especially the Sājdis. Agriculture and flock-owning are the only occupations. Every year in September a large migration of nomads takes place to Kachhi and Sind, where they engage in harvesting and return to the highlands in spring.

Population.

Cultivation is confined to the valleys and the flats beside the river courses. Most of the cultivated tracts consist of 'dry-crop' areas, dependent on flood-water which is held up by embankments. In comparison with the Sarawān country, irrigation is scarce. It is obtained from springs, from *kārez*, which number only thirty-five, and from channels cut from the rivers. Most of the springs and *kārez* occur in Upper Jhalawān. Tracts irrigated by river water include Zahri, part of Gidar, Khuzdār and Zidi, Karkh and Chakku, the valleys of the Mūla and Kolāchi rivers, and Mashkai. Well-irrigation is unknown. The soil has a considerable mixture of sand, and is but moderately fertile. 'Dry-crop' areas produce better crops than 'wet' areas, unless the latter are highly manured.

Agriculture.

The spring harvest is the most important, consisting chiefly of wheat. On the south-west, however, wheat suffers from the damp caused by the sea-breezes, and its place is taken by barley. Rice is grown along the banks of the Mūla and Kolāchi rivers, and, with *jowār*, forms the chief autumn harvest. Dates are grown in Mashkai. Cultivation is gradually extending, but the people prefer flock-owning to cultivation, and progress is slow. Jhalawān is in fact a vast grazing tract.

The bullocks are hardy but small, and a good many are bred in the

lower tracts. Sheep and goats are found in vast numbers. The Khorāsāni variety of sheep is preferred to the indigenous kind, owing to its larger tail. Most of the camels are transport animals, and camel-breeding is almost entirely confined to the Pab range. A few horses are kept in the north, but they are not so numerous as in the Sarawān country.

Lead-smelting was carried on in former days at Sekrān near Khuzdār, and Masson mentions the employment of 200 men in 1840, but the industry has now been abandoned. Little is known of the other minerals of the country. Ferrous sulphate (melanterite), known locally as *zāgh* or *khāghal*, has been found in the Ledav river and near Zahri. A soft ferruginous lithomarge, known as *mak*, is used as a mordant in dyeing.

Trade and communications.

The manufacture of coarse woollen rugs in the *darī* stitch, and of felts, ropes, and bags, is general; good pile carpets are woven for private use by the Bādīnzai Kalandaiānis of Tūtak and at a few other places. Nīchāra needlework is famous locally. There is a large export to Sind of matting and materials for mat-making, and many of the people entirely depend on this source of livelihood. The chief centres of trade are Sūrab, Khuzdār, Nāl, Wad, and Mashkai; but trading is much hindered by the levy of transit dues by both the Kalāt State and local chiefs. *Ghī*, wool, live sheep, and materials for mats are the principal exports; coarse cloth, sugar, mustard oil, and *jowār* are imported.

Railways and metalled roads do not exist. Travellers follow camel-tracks, the most important of which are the Kalāt-Bela route, known as the Kohan-wāt, via Khuzdār, Wad, and the Bārān Lak; the Kalāt-Panjgūr route via Sūrāb; and the Kachhi-Makrān route via the Mūla Pass, Khuzdār, Nāl, and Mashkai. An unmetalled road is now under construction between Kalāt and Wad.

Famine.

Drought is frequent, owing to the shortness of the rainfall, but the proximity of Sind enables the inhabitants to find a ready means of support at such times. During a drought of exceptional severity, which began in 1897 and culminated in 1901, Brāhuis were known in several instances to have taken their daughters of marriageable age to Sind, where the high bride-prices obtained for them enabled the parents to tide over the bad times. Cases have also been known in which servile dependants were exchanged for a maund of dates.

Administration.

Since 1903 an officer, known as the Native Assistant for the Jhalawān country, has been posted to Khuzdār by the Khān of Kalāt under the supervision of the Political Agent. He is supported by twenty levies, and decides petty intertribal and other cases with the assistance of *jirgas*. For administrative purposes,

the country consists of areas subject to the Khān of Kalāt and of tribal areas. The former include the *niābats* of Sūrāb and Khuzdār, each of which is in charge of a *naib*. In Sūrāb there is a *jā-nashīn*, or assistant, stationed at Mashkai; and in Khuzdār three *jā-nashīns*, stationed at Karkh or Karu, Zidi, and Bāghwāna. The Khān's interests in Zahri are supervised by a *daroga*. His rights at Gazg are leased to a farmer with those of Johān in the Sarawān country. In former times the Khān's *naibs* exercised a general control and communicated the Khān's orders to the tribal chiefs; but the latter are now largely controlled by the Political Agent through the Native Assistant in the Jhalawān country. They decide cases occurring among their tribesmen according to tribal custom. In civil suits, a custom has been established of taking one-fourth of the value of the property decreed.

Land revenue, in the case of the subjects of the Khān, is always taken in produce, the rates generally varying from one-fourth to one-eighth. Cesses, known as *rasūm* or *lawāzimāt*, are also levied, by which the State share is largely increased. Transit dues, and fines known as *bādi hawai*, constitute the other sources of revenue in the *niābats*. Contrary to the custom in the Sarawān country, the Jhalawān chiefs exact *mālia* from their tribesmen, generally in the shape of one sheep per household annually. Sheep are also taken on marriages and other festivals in a chief's household, and on the occurrence of deaths. These payments are known as *bijār* and *purs*. Some of the chiefs also levy octroi and transit dues. The value of the total revenue from the Khān's *niābats* varies with the agricultural conditions of the year. In 1903-4 the approximate amounts received were as follows: Sūrāb with Mashkai, Rs. 15,500; Khuzdār, Rs. 14,200; Zahri, Rs. 1,300; total, Rs. 31,000.

In 1894, owing to the unsatisfactory state of affairs in Jhalawān, the Khān sanctioned payments aggregating about Rs. 40,000 per annum to the chiefs of the principal tribes, in return for which they were made responsible for the peace of their respective areas. This sum included the allowances of the Rind and Magassi chiefs in Kachhi. A sum of Rs 3,600 is also contributed by the British Government. At this time tribal levy posts of ten men each were also instituted at Zahri and Sāruna. A post of ten men has since been stationed at Sūrāb, besides the Native Assistant's levies at Khuzdār. The *naib* of Khuzdār is assisted by forty-five levies for revenue and police purposes, and the *naib* of Sūrāb by twenty-five men; but these numbers are increased or reduced as occasion requires. The *naibs* and stronger chiefs generally have stocks in their forts or houses in which offenders are placed.

A few of the chiefs employ Afghān *mullās* for teaching their sons;

otherwise education is unknown. The people are very superstitious, and have a firm belief in the influence of evil spirits, to whom diseases are generally attributed. A few resort to the dispensary at Kalāt for medical treatment. They are well versed in the use, as remedies, of the medicinal drugs which the country produces in large quantities. The sick are frequently branded; for fevers the usual remedy is to wrap the patient in the fresh skin of a sheep or goat. Inoculation by Saiyids is general, except in the case of the Zikris.

Jhālawār.—*Prānt* or division of Kāthiāwār, Bombay. It takes its name from the Jhāla Rājputs, who own the principal estates, and includes the States of DHRĀNGADHRA, the chief of which is the recognized head of the Jhāla clan, LIMDI, WADHWĀN, and other minor States. The area is about 3,978 square miles. The population in 1901 was 305,138, the density being 76 persons per square mile. The revenue in 1903–4 amounted to Rs. 23,59,580.

Jhālawār State.—State in the south-east of Rājputāna, with an area of about 810 square miles. It consists of two separate tracts. The smaller, barely 14 square miles in extent, is known as Kirpāpur, and is quite unimportant. The main tract lies between 23° 45′ and 24° 41′ N. and 75° 28′ and 76° 15′ E., and is bounded on the north-east and north by Kotah; on the north-west and west by the Rāmpura-Bhānpura district (of Indore), and the Agar *tahsīl* (of Gwalior); on the south-west by Sītāmau and Jaora; on the south by Dewās and Agar; and on the east by Pirāwa (of Tonk) and Rāmpura-Bhānpura. In shape it resembles the letter S, with a length of about 85 miles and a breadth varying from 3 to 17 miles. The country rises gradually from 1,000 feet above sea-level in the north to 1,500 feet in the south. A narrow range of low and fairly wooded hills runs south-east past the town of Jhālrapātan in the north, and the southern half of the State is generally hilly, and intersected by small streams, but the rest of the country is a rich undulating plain. The principal rivers are the CHAMBAL and the KĀLĪ SIND, but neither ever actually enters the State, the former flowing for 9 miles along the south-western, and the latter for about 17 miles along the north-eastern boundary. The Chhotī Kālī Sind enters the State in the south-west, and after flowing for about 20 miles through the centre of the Gangdhār *tahsīl*, joins the Chambal. The Au or Ahu river rises near the cantonment of Agar and flows north, generally along the borders of Jhālawār, till it reaches the Mukandwāra range of hills in the extreme north of the State, when it turns abruptly to the south-east, and about 8 miles lower down joins the Kālī Sind near Gāgraun.

Physical aspects.

The rocks of Jhālawār consist generally of shales, limestone, and sandstone belonging to the Upper Vindhyan group.

Besides the usual small game, antelope and 'ravine deer' are found

in the plains. Tigers are occasionally met with in the forests near the capital, but leopards and wild hog are fairly common. *Sāmbar* (*Cervus unicolor*), *chītal* (*Cervus axis*), and *nīlgai* (*Boselaphus tragocamelus*) frequent certain localities, but only in limited numbers.

The climate resembles that of Mālwā, and is generally healthy. The hot season is less severe than that of Northern and Western Rājputāna, and though hot winds sometimes blow in April and May, the nights are usually cool and refreshing. The annual rainfall for the State averages 37 inches, of which about 25 are received in July and August, and 10 in June and September. The rainfall has varied from about $13\frac{1}{2}$ inches at the capital in 1877 to over 68 inches at Gangdhār (in the south-west) in 1900.

History.

The ruling family belongs to the Jhāla clan of Rājputs, which has given its name to the State. One Rājdhar is said to have founded the petty chiefship of Halwad in Kāthiāwār about 1488; and the eighth in succession to him had a son, Bhao Singh, who left his own country and proceeded first to Idar, and next to Ajmer, where he married the daughter of the Sesodia Thākur of Sāwar, by whom he had a son, Mādho Singh, and a daughter. Nothing more is known of Bhao Singh; but Mādho Singh proceeded to Kotah in the time of Mahārao Bhīm Singh, gained the favour of that chief, and obtained the estate of Nānta with the post of Faujdār or commander of the troops as well as of the fort. About the same time his sister was married to Arjun Singh, the eldest son of the Kotah chief; and this family connexion, while adding to Mādho Singh's authority, procured for him the respectful title of *māmā*, or maternal uncle, from the younger members of the Kotah family. Mādho Singh was succeeded as Faujdār by his son Madan Singh, and the post became hereditary in the family. Himmat Singh followed Madan Singh, and was in turn succeeded in 1758 by his famous nephew, Zālim Singh, whom he had adopted, and who was at the time only eighteen years of age. Three years later Zālim Singh was the means of securing victory for the troops of Kotah over the army of Jaipur at Bhatwāra; but he afterwards fell into disfavour with his master (Mahārao Gumān Singh) in consequence of some rivalry in love, and, being dismissed from his office, he migrated to Udaipur, where he did good service, and received from the Mahārānā the title of Rāj Rānā. Later on, he retraced his steps to Kotah, where he was not only pardoned but reinstated in his old office; and when the Mahārao was on his deathbed, he sent for Zālim Singh and committed his son, Umed Singh, and the country to his charge. From this time (1771) Zālim Singh was the real ruler of Kotah. He raised it to a state of high prosperity, and under his administration, which lasted for more than fifty years, the Kotah territory was respected by all parties. Through him a treaty was made with the British Government

in 1817, by which Kotah was taken under protection; and by a supplementary article, added in 1818, the entire administration was vested in Rāj Rānā Zālim Singh and his heirs in regular succession and perpetuity. Zālim Singh, the Machiavelli of Rājasthān, as Tod calls him, died in 1824, and his son, Mādho Singh, received undisputed charge of the administration. His unfitness for office was a matter of notoriety, and he was in turn succeeded by his son, Madan Singh. In 1834 disputes between the chief of Kotah and his minister were constantly occurring, and there was danger of a popular rising for the expulsion of the latter. It was therefore resolved, with the consent of the Mahārao of Kotah, to dismember the State and to create the new principality of Jhālawār as a separate provision for the descendants of Zālim Singh. Seventeen districts, yielding a revenue of 12 lakhs, were made over to Madan Singh and his heirs and successors, being the descendants of Rāj Rānā Zālim Singh, according to the custom of succession obtaining in Rājwāra; and by a treaty dated 1838 this new principality was taken under the protection of the British Government, and agreed to supply troops according to its means, and pay a tribute of Rs. 80,000. The Jhālawār State thus dates from 1838; and its first chief, Madan Singh, on assuming charge, received the title of Mahārāj Rānā, was entitled to a salute of 15 guns, and was placed on the same footing as the other chiefs of Rājputāna. He died in 1845 and was succeeded by his son, Prithwī Singh, who, during the Mutiny of 1857–8, did good service by conveying to places of safety several Europeans who had taken refuge in his State. He received the usual *sanad* guaranteeing to him the right of adoption in 1862, and on his death in August, 1875, was succeeded by his adopted son, Bakht Singh, of the Wadhwān family in Kāthiāwār. The latter, in accordance with family custom, which enjoined that only the four names of Zālim Singh, Mādho Singh, Madan Singh, and Prithwī Singh should be assumed by the rulers of this house, took the name of Zālim Singh. As he was a minor, the administration was carried on by a Political Superintendent assisted by a Council, and he himself joined the Mayo College at Ajmer. He attained his majority in 1883 and was invested with governing powers (subject to certain restrictions) in 1884; but as he failed to administer his State in accordance with the principles laid down for his guidance, the Government of India was compelled to withdraw his powers in 1887, and to restore the arrangements which were in force during his minority. In 1892 Zālim Singh promised amendment, and was entrusted with the charge of all the departments except that of land revenue, which was to remain under the Council, while in September, 1894, this reservation was withdrawn and he obtained full powers. But he failed to govern the State properly, and was deposed in 1896; he now lives at Benares, and receives an allowance of Rs. 30,000 a year. Zālim Singh had no sons;

and there being no direct descendants of his namesake, the great regent, the Government of India restored to Kotah part of the territories which had been made over in 1838 to form the principality of Jhālawār, and formed the remaining districts into a new State for the descendants of the family to which the first Rāj Rānā (Zālim Singh) belonged, and for those Sardārs and others whose allegiance it was considered undesirable to transfer to Kotah. In 1897 Kunwar Bhawāni Singh, son of Thākur Chhatarsāl of Fatehpur, and a descendant of Mādho Singh, the first Jhāla Faujdār of Kotah, was selected by Government to be the chief of the new State. Arrangements were completed by the end of 1898, and the actual transfer of territory took place on January 1, 1899, from which date the new State of Jhālawār came into existence. Bhawāni Singh was installed as ruler, under the title of Rāj Rānā, with a salute of 11 guns, and was at the same time invested with full powers of administration. The tribute payable to the British Government is now Rs. 30,000 a year. His Highness was educated at the Mayo College. The principal events of his rule have been the famine of 1899–1900; the adoption of Imperial postal unity in 1900; the introduction of British currency and weights in 1901; and his visit to Europe in 1904.

The places of archaeological interest are the remains of the old city of Chandrāvati close to JHĀLRAPĀTAN TOWN, and the rock-cut *stūpas* at the village of Kholvi[1] in the Dag *tahsīl* in the south. The latter are interesting as being probably the most modern group of Buddhist caves in India.

Population.

The number of towns and villages in the State is 410, and the population at each of the three enumerations was: (1881) 340,488, (1891) 343,601, and (1901) 90,175. The decrease since 1891 was of course due mainly to the remodelling of the State in 1899, but to a considerable extent also to the famine of 1899–1900 and the severe epidemic of malarial fever which followed. Although vital statistics in Native States are not very reliable, it may be mentioned that in the entire State in 1900 only 941 births were registered, while deaths numbered 13,872. The State is divided into five *tahsīls* and possesses two towns, JHĀLRAPĀTAN and the *chhaoni* or cantonment of the same name, both administered as municipalities. The table on the next page gives the chief statistics of population in 1901.

In 1901 Hindus numbered 78,107, or 86 per cent. of the population, the majority being Vaishnavas; Musalmāns, 8,845, or nearly 10 per cent., mostly of the Sunni sect; and Jains, 3,129, or 3 per cent. The languages mainly spoken are Mālwī (or Rāngri) and Hāraotī, both dialects of Rājasthānī.

[1] *Archaeological Survey of Northern India*, vol. ii, pp. 280–8; and J. Fergusson, *History of Indian and Eastern Architecture* (1889), pp. 132 and 162.

Tahsīl.	Area in square miles.	Number of		Population.	Percentage of variation in population between 1891 and 1901.	Number of persons able to read and write.
		Towns.	Villages.			
Pātan . . .	244	2	127	37,016	− 38·4	1,881
Pachpahār . .	131	...	60	9,313	− 48·7	394
Awar . . .	80	...	41	9,240	− 41·3	154
Dag . . .	168	...	71	16,167	− 38·3	329
Gangdhār . .	187	...	109	18,439	− 40·1	330
State total	810	2	408	90,175	− 40·3	3,088

Among castes and tribes the most numerous are the Sondhias, who number 22,000, or 24 per cent. of the total population. They claim to be Rājputs, but are probably of mixed descent; they are described as idle, ignorant, immoral, and given to cattle-lifting. Next come the Chamārs (workers in leather and agriculturists), forming 8 per cent. of the total; Brāhmans, some of whom are cultivators, while others are engaged in religious or menial services, 7 per cent.; Mahājans (bankers and traders), 6 per cent.; Balais (cultivators, workers in leather, and village *chaukīdārs*) and Gūjars (cattle-breeders and dealers, and agriculturists), each between 4 and 5 per cent. More than 54 per cent. of the people live by the land, and many others combine agriculture with their special occupations.

Agriculture.

The soils may be divided into three classes: namely, *kali*, a rich black loam; *māl*, a loam of a lighter colour but almost as fertile; and *barli*, often of a reddish colour, generally stony and sandy, and always shallow. Of these classes, it is estimated that the second supplies about one-half and the others about one-fourth each of the cultivable area.

Agricultural statistics are available only for the *khālsa* portion of the State, the area of which is about 558 square miles. From this must be deducted 158 square miles occupied by forests, rivers, towns, roads, &c., leaving 400 square miles available for cultivation. The average net area cropped during the last four years has been about 125 square miles, or 31 per cent. of the *khālsa* area available for cultivation. The principal crops and the area (in square miles) ordinarily cultivated in each case are: *jowār*, 85; maize, 14; cotton, 8; and poppy, gram, and wheat, each about 7.

Cattle are plentiful and of a good stamp, being largely of the Mālwā breed. The State used to be noted for its ponies, but excessive mortality in the recent famine has greatly reduced their numbers. The goats and sheep are of the ordinary type, and are largely kept to provide wool, meat, milk, and manure. Cattle fairs are held yearly at Jhālrapātan town at the end of April and beginning of November.

The area ordinarily irrigated is about 19 square miles. Irrigation is chiefly from wells, of which more than 6,000 are in working order, about 1,350 being masonry. Leathern buckets drawn up with a rope and pulley by bullocks are always used for lifting the water, except when the latter is near the surface and the area to be irrigated is small, when a *dhenklī*, or long pole supported by a prop, with a jar or bucket at one end and a weight at the other, is used.

Forests cover an area of nearly 8 square miles, and are looked after by a department called Dūngar-Bāgar. The principal trees are the *dhao* (*Anogeissus pendula*), *dhāk* (*Butea frondosa*), *gurjan* (*Dipterocarpus turbinatus*), and *tendū* (*Diospyros tomentosa*), and such fruit trees as the *bel* (*Aegle Marmelos*), mango, and *mahuā* (*Bassia latifolia*). The forest income in 1903-4 was about Rs. 4,300, and the expenditure Rs. 1,800.

The hills near the capital contain large quantities of excellent sandstone, mostly of a greyish colour, but in places almost white or deep red. The stone is much used for building purposes. Iron and copper have been found in places, but these minerals are not now worked.

Trade and communications.

The manufactures are unimportant, and consist of rough cotton fabrics, floorcloths, brass utensils, knives, and sword-blades. The chief exports are opium (to Ujjain and Indore), oilseeds, and cotton: while the chief imports are food-grains (mainly from Hāraoti), salt, sugar, cloth, and metals.

There is at present no railway in the State, but the Nāgda-Muttra line, now under construction, will pass through three *tahsils*. The total length of metalled roads is 64 miles, and of unmetalled roads 72 miles. The State adopted Imperial postal unity in 1900, and now contains six British post offices, two of which (at Jhālrapātan and the *chhaoni*) are also telegraph offices.

Famine.

Owing to its geographical position, the State has generally a very good rainfall, and scarcities and famines are uncommon. Indeed, during the last hundred years the only famine appears to have been that of 1899-1900. The rain practically ceased after July, 1899, with the result that the autumn crop failed almost entirely, and there was considerable scarcity of fodder. The Darbar started numerous works and poorhouses, at which nearly 1½ million units were relieved at a cost exceeding 2 lakhs, and, besides making liberal advances to agriculturists, granted remissions and suspensions of land revenue.

Administration.

The State is governed by the Rāj Rānā, with the assistance of a Dīwān. In charge of each of the five *tahsīls* is a *tahsīldār*, who is assisted by a *naib-tahsīldār* in the large Pātan *tahsīl*.

In the administration of justice the courts follow generally the Codes

in force in British India. The lowest courts are those of the *tahsīldārs*; they decide civil suits not exceeding Rs. 100 in value, and can sentence to one month's imprisonment and fine up to Rs. 30. Over them are the *Dīwāni Adālat*, which tries civil suits not exceeding Rs. 5,000 in value, and the *Faujdārī Adālat*, which can pass a sentence of two years' imprisonment and fine up to Rs. 300. The next court is the Appellate Court; its powers on the civil side are unlimited, while on the criminal side it can pass any sentence allowed by law, but its proceedings in capital cases require the confirmation of the *Mahakma khās*, which is presided over by the Rāj Rānā, and is the final appellate authority in the State.

The normal revenue is at present about 4 lakhs a year, the chief sources being land (3 lakhs) and customs (Rs. 60,000). The ordinary expenditure is slightly less than the revenue; and the main items are army and police (Rs. 75,000), revenue and judicial staff (Rs. 72,000), palace and privy purse (Rs. 45,000), public works and tribute to Government (Rs. 30,000 each), and stables (about Rs. 20,000). The State is free from debt.

Jhālawār had formerly a silver and copper coinage of its own, known as *Madan shāhi* (after its first chief), and up to about 1893 the value of the local rupee was always equal to, and sometimes greater than, that of the British coin. Subsequently it began to decline in exchange value, till, in 1899, 123 *Madan shāhi* rupees exchanged for 100 British. The Rāj Rānā thereupon decided to abolish the local coinage, and introduce British in its stead as the sole legal tender in the State; and this was carried out, with the assistance of Government, between March 1 and August 30, 1901.

The State may be divided into two main areas: namely, that paying revenue to the Darbār and called *khālsa*, and that granted revenue-free to *jāgīrdārs* and *muāfidārs*. The former occupies about 558 and the latter 252 square miles. The majority of the *jāgīrdārs* pay a small tribute yearly or every second year to the Darbār, and some have to supply horses and men for the service of the State. *Muāfi* lands are those granted for religious or charitable purposes or in lieu of pay, and some of the holders have to pay certain dues (*sisāla*) every other year. In the *khālsa* area there are two tenures: namely, *khātedāri*, which is the same as *ryotwāri*; and *watandāri*, which is somewhat similar to *zamīndāri*. The former prevails in the Pātan *tahsīl*; each individual holder is responsible directly to the State for the revenue of his holding, and possesses certain rights which are heritable, and which can be mortgaged but not sold. In the rest of the State, the other tenure prevails. The *watandārs* are members of the village community, and their interests are hereditary and transferable, and not lost by absence. They are responsible for payment of the State demand, and arrange

among themselves for the cultivation of the village lands and the distribution of the revenue.

Formerly the land revenue was paid in kind; but in 1805 Zālim Singh substituted a money-rate per *bīgha* for each class of soil, and his rates remained nominally in force till the present settlement was made in 1884. This settlement was concluded directly with individual holders (*khātedārs*) in the Pātan *tahsīl*, and with the *watandārs* in the rest of the State. The rates per acre vary from about Rs. 5 to over Rs. 23 for 'wet' land, and from about 13 annas to Rs. 6 for 'dry' land, but the *pān* or betel-leaf gardens near the capital pay more than Rs. 44 per acre.

The military force consists of 100 cavalry, 71 gunners, and 420 infantry, and there are 20 field and 25 other guns classed as serviceable. The majority (about 300) of the infantry are employed on police duties in the districts.

The police force proper numbers 366 officers and men, 30 of the latter being mounted, distributed over seven police stations. There are also 166 village *chaukīdārs* who hold lands revenue-free for their services.

Besides the Central jail at the *chhaoni*, there are lock-ups at the head-quarters of each *tahsīl*, in which persons sentenced to imprisonment not exceeding one month are confined.

In regard to the literacy of its population, Jhālawār stands seventh among the twenty States and chiefships of Rājputāna, with 3·4 per cent. (6·4 males and 0·2 females) able to read and write. There are now nine schools in the State, and the daily average attendance during 1904–5 was 424. The only notable institution is the high school (at the *chhaoni*), in which English, Urdū, Hindī, and Sanskrit are taught. The other schools are all primary, and include one for girls (attended by twelve pupils) and one specially for Sondhias. No fees are charged anywhere, and the yearly expenditure on education is about Rs. 6,000.

In the beginning of 1904 there were four hospitals and two dispensaries, but one of the latter was closed during the year. The hospitals have accommodation for 34 in-patients. During 1904 the number of cases treated was 38,177 (189 being those of in-patients), and 1,533 operations were performed.

Vaccination was commenced about 1870–1, but is nowhere compulsory. A staff of two vaccinators is kept up, and in 1904–5 the number of persons successfully vaccinated was 2,114, or more than 23 per 1,000 of the population. The total State expenditure on medical institutions and vaccination, including a share of the pay of the Agency Surgeon and his establishment, is about Rs. 17,000.

[*Rājputāna Gazetteer*, vol. ii (1879, under revision); H. B. Abbott, *Settlement Report* (1885); P. A. Weir and J. Crofts, *Medico-topographical Account of Jhālawār* (1900).]

Jhalerā.—*Thakurāt* in the BHOPĀL AGENCY, Central India.

Jhalidā.—Town in the head-quarters subdivision of Mānbhūm District, Bengal, situated in 23° 22′ N. and 85° 59′ E. Population (1901), 4,877. Jhalidā was constituted a municipality in 1888. The income and expenditure during the decade ending 1901–2 averaged Rs. 3,000. In 1903–4 the income was Rs. 3,700, mainly from a tax on persons (or property tax); and the expenditure was Rs. 3,400. Jhalidā is a centre of the lac and cutlery industries.

Jhālod.—Town in the petty division (*petha*) of the same name in the Dohad *tāluka* of the Pānch Mahāls District, Bombay, situated in 23° 6′ N. and 74° 9′ E. Population (1901), 5,917. The inhabitants are mostly Bhīls, Ghānchis, and Kunbīs. There is an export trade in grain, pottery, cotton cloth, and lac bracelets in imitation of the costly ivory Ratlām bracelets. Flagstone is also exported in large quantities. The town contains a dispensary and six schools, four for boys and two for girls, attended by 223 and 88 pupils respectively.

Jhālrapātan Chhaoni (or cantonment).—Chief town and official capital of the State of Jhālawār, Rājputāna, situated in 24° 36′ N. and 76° 10′ E., on a rising stretch of rocky ground over 1,000 feet above the sea, between the fort of Gāgraun (in Kotah) and the town of Jhālrapātan. The *chhaoni*, as it is always called locally, was founded in 1791 by Zālim Singh, regent of Kotah, and was at first merely a permanent camp, which he made his head-quarters on account of its central and strategical position. Houses gradually took the place of tents and huts, and in course of time the old camp attained the importance of a town. The population in 1901 numbered 14,315, of whom 9,501, or 66 per cent., were Hindus, and 4,402, or 31 per cent., Musalmāns. The Rāj Rānā's palace is enclosed by a high masonry wall forming a square, with large circular bastions at each corner, and two semicircular ones in the centre of each side of the square. The principal entrance is on the eastern side, and the approach to it is along the main street of the bazar running due east and west. About a mile to the south-west is a sheet of water, below which are several gardens, and in one of these is the summer residence of the chief, surrounded by a canal filled with water from the tank. The sanitation, lighting, water-supply, and roads of the *chhaoni* are looked after by a municipal committee which was established about 1876–7. The receipts, derived mainly from the rent of State houses and shops and the sale of unclaimed property, average about Rs. 5,000 yearly, and the expenditure is slightly less. Besides the palace, law courts, and public offices, the town contains a combined post and telegraph office, a Central jail, a couple of schools, and a hospital. The jail has accommodation for 164 prisoners, and the daily average number in 1904 was 79. The prisoners are employed in making carpets, blankets, cotton cloth, shoes,

&c., and in printing, bookbinding, and gardening. The jail costs about Rs. 6,200 a year, and the manufactures bring in about Rs. 1,150. Of the schools, one is for boys and the other for girls. The former is a high school, with a daily average attendance in 1904–5 of 164. The hospital has accommodation for 14 in-patients.

Jhālrapātan Town (locally called Pātan).—Head-quarters of the Pātan *tahsīl* and the commercial capital of the State of Jhālawār, Rājputāna, situated in 24° 32′ N. and 76° 10′ E., at the foot of a low range of hills and on the left bank of a stream known as the Chandrabhāga. Population (1901), 7,955. Several modes of deriving the name are current. Some say the word means the 'city of bells,' and that the old town was so called because it contained 108 temples with bells; others that it is the 'city' (*pātan*) of 'springs' (*jhālra*), the latter abounding in the rivulet above mentioned; while others again say that the word *jhālra* refers to the Rājput clan (Jhāla), to which the founder of the new town belonged. The town possesses a combined post and telegraph office, a small lock-up for prisoners sentenced to short terms, a vernacular school attended by about 57 boys, and a dispensary for out-patients.

A little to the south of the present town there formerly existed a city called Chandrāvati, said to have been built by Rājā Chandra Sena of Mālwā, who, according to Abul Fazl, was the immediate successor of the famous Vikramāditya. General Cunningham visited the site in 1864–5, and wrote:—

'Of its antiquity there can be no doubt, as I obtained several specimens of old cast copper coins without legends, besides a few of the still more ancient square pieces of silver which probably range as high as from 500 to 1000 B.C. These coins are, perhaps, sufficient to show that the place was occupied long before the time of Chandra Sena, but as none of the existing ruins would appear to be older than the sixth or seventh century A.D., it is not improbable that the city may have been refounded by Chandra Sena, and named after himself Chandrāvati. I think it nearly certain that it must have been the capital of Ptolemy's district of *Sandrabatis*, and, if so, the tradition which assigns its foundation to the beginning of the Christian era would seem to be correct.'

This ancient city is said to have been destroyed, and its temples despoiled, in the time of Aurangzeb, and the principal remains are now clustered together on the northern bank of the Chandrabhāga stream. The largest and the earliest of these is the celebrated *lingam* temple of Sītaleswar Mahādeva, which Mr. Fergusson described as 'the most elegant specimen of columnar architecture' that he had seen in India, an opinion fully concurred in by General Cunningham. The date of this temple was put by them at about A.D. 600. It was just to the

north of these remains that Zālim Singh, the famous minister of Kotah, founded the present town in 1796, including within its limits the temple of Sāt Saheli (or 'seven damsels') and a Jain temple which formerly belonged to the old city. To encourage inhabitants, Zālim Singh is said to have placed a large stone tablet in the centre of the chief bazar, on which was engraved a promise that new settlers would be excused the payment of customs dues, and would be fined no more than Rs. 1-4-0 for whatever crime convicted. These privileges were annulled in 1850, when the Kāmdār (minister) of Mahārāj Rānā Prithwī Singh had the tablet removed, and thrown into a tank, whence it was dug out about 1876.

According to Tod, the town was placed under municipal government at its foundation in 1796, but the fact is not mentioned on the stone tablet above referred to. The present municipal committee was formed about 1876, and attends to the lighting and sanitation of the place, besides disposing of petty cases relating to easements. The income and expenditure are respectively about Rs. 1,000 and Rs. 2,000 yearly, the difference being provided by the State. The town is well and compactly built, and is surrounded on all sides save the west by a substantial masonry wall with circular bastions. The streets are wide and regular, intersecting each other at right angles, and contain many large and handsome buildings. On the west is a lake formed by a solid masonry dam about two-thirds of a mile long, on which stand sundry temples and buildings, and the lands in the neighbourhood and the well-shaded gardens within and around the town walls are irrigated by means of a canal about 2 miles long.

[J. Tod, *Rajasthan*, vol. ii; J. Fergusson, *Picturesque Illustrations of Ancient Architecture in Hindustān* and *History of Indian and Eastern Architecture*; and the *Archaeological Survey of Northern India*, vols. ii and xxiii.]

Jhālū.—Town in the District and *tahsīl* of Bijnor, United Provinces, situated in 29° 20′ N. and 78° 14′ E., 9 miles south-east of Bijnor town. Population (1901), 6,444. Under Akbar it was the head-quarters of a *mahāl* or *pargana*. It is administered under Act XX of 1856, with an income of about Rs. 1,000. It contains a primary school with 113 pupils, and three aided schools with 62 boys and 35 girls.

Jhāmpodad.—Petty State in KATHIĀWĀR, Bombay.

Jhang District.—District in the Multān Division of the Punjab, lying between 30° 35′ and 32° 4′ N. and 71° 37′ and 73° 31′ E., with an area of 6,652 square miles. It is bounded on the north-west by the District of Shāhpur; on the north-east by Shāhpur and Gujrānwāla; on the south-east by Montgomery; on the south by Multān and Muzaffargarh; and on the west by Miānwāli. It consists of an

irregular triangle, artificially constituted for administrative purposes from portions of three separate tracts. Its eastern half embraces a large part of the dorsal ridge in the Rechna Doāb; thence it stretches across the Chenāb into the wedge of land between that river and the Jhelum, whose waters join the Chenāb a few miles below the town of Jhang; while westward again the boundary runs, beyond the joint river, some distance into the THAL or desert of the Sind-Sāgar Doāb. Southward the District stretches almost to the confluence of the Chenāb with the Rāvi, but does not actually reach the latter river. Along the rivers are strips of fertile lowland, rising with a more or less defined bank into the uplands of the Doābs. The Bār or upland plain of the Rechna Doāb, until recently a desert inhabited only by nomad tribes, has been changed into one of the most fertile tracts in India by the CHENĀB CANAL. The nomads of the Bār and immigrants from other parts of the Province have been settled on the newly irrigated land; and, for the proper administration of the tract, it has been found necessary to divide Jhang District into two, the eastern and south eastern portions being formed into a separate District with its head-quarters at LYALLPUR. The present article, for the most part, describes Jhang as it existed before the change.

Physical aspects.

North-west of the Chenāb, the upland, which runs like a wedge between the lowlands of the Chenāb and Jhelum, and was once a desert like the Bār of the Rechna Doab, is being fertilized by the JHELUM CANAL. West of the Jhelum river the alluvial plain after a few miles rises abruptly into the desert of the Sind-Sāgar Thal. With the exception of some isolated low hills on either side of the Chenāb at Kirāna and Chiniot, the District is almost flat.

Jhang consists entirely of alluvium, with the exception of two small patches of quartzite which form the Kirāna and Chiniot hills. These are geologically interesting, as probably belonging to the Alwar quartzite of the Delhi system, and thus constituting the most northerly known outcrops of rocks of Peninsular type.

Before the foundation of the Chenāb Canal and Colony, the District was the Bār tract *par excellence*; but the flora of that tract is fast giving way to close cultivation, and saltworts are being driven out by irrigation. The annual weeds, however, are still mainly those of the West Punjab flora. Along the rivers are found the usual coverts (*belas*) of reed-grasses (*Saccharum*, &c.) and the lesser tamarisks (*jhau* and *pilchi*). The date palm is grown near the Jhelum, but the produce is usually inferior.

The wolf, hyena, and wild cat are found in decreasing numbers as cultivation advances. Wild hog and 'ravine deer' (Indian gazelle) are confined to the wilder parts of the lowlands.

The climate of Jhang is that of the South-West Punjab, the rainless tract comprising Multān, Montgomery, and Dera Ismail Khān, which is said to have the highest mean temperature in India between June and August. The dry air makes the District unusually healthy, except in the canal tracts, where it is malarious and trying to Europeans. The annual rainfall is light, ranging from 8 inches at Shorkot to 11 at Chiniot.

History.

The Districts of Jhang and Montgomery were the scene of Alexander's operations against the Malli in 325 B.C., and SHORKOT has been identified by some authorities with one of the towns captured by him during the campaign. After his withdrawal, the country seems to have come successively under the sway of the Mauryas (*c.* 321–231 B.C.), the Graeco-Bactrians (*c.* 190 B.C.), the Indo-Parthians (*c.* 138 B.C.), and the Kushans or Indo-Scythians (*c.* A.D. 100–250). About A.D. 500 it was conquered by the White Huns, whose capital of Sākala should, according to recent authorities, be identified with CHINIOT or Shāhkot, a village in Gujrānwāla District, or with Siālkot. Their power was short-lived, and at the time of Hiuen Tsiang's visit (A.D. 630) the District was included in the kingdom of Tsehkia, the capital of which was close to Sākala. In the tenth century it was subject to the Brāhman kings of Ohind and the Punjab, and under the Mughals it was included in the *Sūbah* of Lahore.

In modern times the history of Jhang centres in the tribe of the Siāls, who ruled over a large tract between Shāhpur and Multān, with little dependence on the imperial court at Delhi, until they finally fell before the power of Ranjīt Singh. The Siāls are Muhammadans of Rājput descent, whose ancestor, Rai Shankar of Dārānagar, migrated early in the thirteenth century from the Gangetic Doāb to Jaunpur. His son, Siāl, in 1243 left his adopted city for the Punjab, then overrun by Mongol hordes. Such emigrations appear to have occurred frequently at the time, owing to the unsettled state of Northern India. During his wanderings in search of a home, Siāl fell in with the famous Muhammadan saint Bāba Farīd-ud-dīn Shakarganj, of Pākpattan, whose eloquence converted him to the faith of Islām. He afterwards sojourned for a while at Siālkot, where he built a fort, but finally settled down and married at Sāhiwāl, in Shāhpur District. It must be confessed, however, that his history and that of his descendants bear somewhat the character of eponymous myths. Mānik, sixth in descent from Siāl, founded the town of Mankerā in 1380; and his great-grandson, Mal Khān, built Jhang Siāl on the Chenāb in 1462. Four years later, Mal Khān presented himself at Lahore, in obedience to a summons, and obtained the territory of Jhang as an hereditary possession, subject to a payment of tribute to the imperial treasury. His family continued to rule at Jhang, with the dynastic quarrels and massacres usual in Indian annals, till the beginning of the last century.

Meanwhile the Sikh power had arisen in the north, and Karam Singh Dulu, a chief of the Bhangī confederacy, had conquered Chiniot. In 1803 Ranjīt Singh took the fort there and marched on Jhang, but was bought off by Ahmad Khān, the last of the Siāl chieftains, on promise of a yearly tribute, amounting to Rs. 70,000 and a mare. Three years later, however, the Mahārājā again invaded Jhang with a large army, and took the fort, after a desperate resistance. Ahmad Khān then fled to Multān, and the Mahārājā farmed the territories of Jhang to Sardār Fateh Singh. Shortly afterwards, Ahmad Khān returned with a force given him by Muzaffar Khān, Nawāb of Multān, and recovered a large part of his previous dominions, which Ranjīt Singh suffered him to retain on payment of the former tribute, as he found himself too busy elsewhere to attack Jhang. After his unsuccessful attempt on Multān in 1810, the Mahārājā took Ahmad Khān a prisoner to Lahore, as he suspected him of favouring his enemy, Muzaffar Khān. He afterwards bestowed on him a *jāgīr*, which descended to his son, Ināyat Khān. On the death of the latter, his brother, Ismail Khān, endeavoured to obtain succession to the *jāgīr*, but failed through the opposition of Gulāb Singh. In 1847, after the establishment of the British Agency at Lahore, the District came under its charge, and in 1848 Ismail Khān rendered important services against the rebel chiefs, for which he received a small pension. During the Mutiny of 1857, the Siāl leader again proved his loyalty by raising a force of cavalry and serving in person on the British side.

The presence of numerous mounds, especially in the south of the District, testifies to the former existence of a large and settled population. The remains which have received most attention are those at SHORKOT, consisting of a huge mound of ruins surrounded by a wall of large-sized bricks. Most of the pre-Muhammadan coins that have been found here are of the Indo-Scythian period. The finest building in the District is the Shāhi Masjid at Chiniot, built in the reign of Shāh Jahān.

Population.

The population of the District at the last three enumerations was: (1881) 390,703, (1891) 432,549, and (1901) 1,002,656. It increased by no less than 132 per cent. during the last decade, almost entirely owing to the opening of the Chenāb Canal and the colonization of the canal tract. The District is divided into six *tahsīls*: JHANG, CHINIOT, SHORKOT, LYALLPUR, SAMUNDRI, and TOBA TEK SINGH. The head-quarters of each are at the place from which it is named. The towns are the municipalities of JHANG-MAGHIĀNA, the head-quarters of the District, CHINIOT, and LYALLPUR. The table on the next page gives the principal statistics of population in 1901.

Muhammadans form 68 per cent. of the total population, Hindus

24 per cent., and Sikhs 7 per cent. The density is only 150·7 persons per square mile, which is considerably below the average (209) for the British Punjab. The language of the nomad tribes who originally inhabited the Bār is called Janglī, a form of Western Punjābi. Every variety of Punjābi is represented among the colonists.

*Tahsil.**	Area in square miles.	Number of Towns.	Number of Villages.	Population.	Population per square mile.	Percentage of variation in population between 1891 and 1901.	Number of persons able to read and write.
Jhang . .	1,438	1	414	194,454	135·1	†	11,362
Chiniot . .	1,328	1	406	200,676	151·1	†	5,693
Shorkot . .	927	...	177	95,136	102·6	− 2·9	5,023
Lyallpur . .	1,084	1	255	229,421	211·6	†	6,593
Samundri . .	1,053	...	310	157,285	149·3	†	3,526
Toba Tek Singh	1,007	..	334	125,684	124·8	†	3,937
District total	6,652	3	1,896	1,002,656	150·7	+ 131·8	36,134

NOTE.—The figures for the areas of *tahsils* are taken from revenue returns. The total District area is that given in the *Census Report*.

* The *tahsils* of Lyallpur, Toba Tek Singh, and Samundri, with their boundaries somewhat modified, form the new district of LYALLPUR, which was constituted on December 1, 1904. Earlier in the same year, the Kirāna Bār was transferred from Jhang to Shāhpur, and subsequently villages were transferred from Toba Tek Singh to Jhang and from Chiniot to Lyallpur.

† Not available owing to changes in *tahsīl* boundaries since 1891.

The most numerous tribe is that of the Jats, who number 231,000, or 23 per cent. of the total population. Next to them in numerical strength come the Rājputs, numbering 90,000, and then the Arains with 62,000. Other important agricultural tribes are the Baluchs (29,000), Khokhars (24,000), and Kambohs (11,000). The Saiyids number 10,000. The Aroras (68,000) are the strongest of the commercial classes, the Khattrīs returning 21,000. The Brāhmans number 9,000. Of the artisan classes, the Julāhās (weavers, 40,000), Kumhārs (potters, 32,000), Mochīs (shoemakers and leather-workers, 29,000), Chamārs (shoemakers and leather-workers, 23,000), Tarkhāns (carpenters, 23,000), and Lohārs (blacksmiths, 10,000) are the most important; and of the menials, the Chūhrās and Musallis (sweepers and scavengers, 105,000), Māchhis (fishermen, bakers, and water-carriers, 21,000), Nais (barbers, 13,000), and Dhobis (washermen, 10,000). Other castes worth mentioning in view of their numerical strength are the Mīrāsīs (village minstrels, 16,000) and Fakīrs (mendicants, 13,000). About 49 per cent. of the people are supported by agriculture.

The Church Missionary Society began work in the District in 1899, and has two stations, at Gojra and Toba Tek Singh. A considerable number of native Christians are scattered through the villages of the colony. At the last Census (1901) the number of Christians in the

colony was 8,672. The Church Missionary Society owns two villages: Montgomerywālā, the larger, where there is a native church, with a population of 1,021; and Batemanābād, with a population of 337. The Roman Catholics hold the villages of Khushpur, founded in 1899 (population, 1,084), and Francispur, founded in 1904. The American Reformed Presbyterians have a mission at Lyallpur established in 1894, and they were followed by the American United Presbyterians in 1896. A few Salvationists are settled at Lyallpur and the neighbouring villages.

Agriculture.

The soil is an alluvial loam, more or less mixed with sand; but agricultural conditions depend not on distinctions of soil, but on the facilities afforded for irrigation, and less than one per cent. of the cultivation is unirrigated. At the same time the District, while not dependent on the rainfall, benefits largely by seasonable rain, which enables cultivation to be extended by supplementing the supply available from irrigation, and also secures an abundant supply of fodder.

The main agricultural statistics for 1903-4 are shown below, areas being in square miles:—

Tahsil.	Total.	Cultivated.	Irrigated.	Cultivable waste.
Jhang . .	1,414	401	340	891
Chiniot . .	1,311	474	400	745
Shorkot . .	917	214	157	638
Lyallpur . .	1,024	700	697	257
Samundri . .	962	649	649	265
Toba Tek Singh	934	556	556	324
Total	6,562	2,994	2,799	3,120

More than half the area of the District, or 3,531 square miles, is the property of Government. Of this area, nearly two-thirds is leased to crown tenants in the Chenāb Colony, and a large portion of the remainder will soon be commanded by the Jhelum Canal and leased to tenants. The Thal alone will thus remain uncultivated. Nearly all the proprietary villages are held by communities of small peasant owners. The area in square miles under each of the principal food-grains in 1903-4 was: wheat, 1,333; great millet, 170; and maize, 143. The principal non-food crop is cotton (354). Oilseeds covered 188 square miles.

The construction of the Chenāb Canal has entirely revolutionized the agricultural conditions of the uplands between the Chenāb and Rāvi, and the Jhelum Canal is doing the same for the Bār north of the Jhelum. Thus the District, once one of the most sterile and thinly populated, is now one of the first in the Punjab, in both cultivation

and population. The experimental farm at Lyallpur, established in 1901, is chiefly utilized for the study of Punjab crops, and their improvement by cross-fertilization and selection; but it has hardly been in existence long enough to produce any result as regards the quality of the crops generally grown in the District. In spite of the important part played by wells in the cultivation of the lowlands, loans for their construction are not popular. Twelve lakhs were advanced under the Land Improvement Loans Act during the five years ending 1901; but these advances were taken almost entirely by incoming colonists, to pay expenses due from them to Government under a system which has now been given up.

Before the introduction of canal-irrigation, the population of the Bār was largely pastoral. The breed of cattle, however, was never greatly esteemed, and the large numbers now required for agricultural purposes are purchased from outside the District. Cattle fairs are held at Jhang and Lyallpur. The District is famous for its horses, and a good deal of horse-breeding is carried on. The Remount department keeps nine and the District board seven horse stallions, and the District contains more than 1,000 branded mares. Ten donkey stallions are kept by the Remount department and four by the District board. Important horse fairs are held at Lyallpur and Jhang. A large number of camels are bred, and many of the colonists are bound by the conditions of their grants to furnish camels for transport work when required. Sheep and goats are kept in large numbers.

Of the total area cultivated in 1903-4, 2,799 square miles were irrigated, 453 square miles being supplied from wells, 23 from wells and canals, 2,319 from canals, and 4 from streams and tanks. In addition, 154 square miles, or 5 per cent. of the cultivated area, are subject to inundation from the rivers. The great mainstay of the District is the CHENĀB CANAL. The greater part of the country irrigated by this canal was originally Government waste, and now forms part of the Chenāb Colony, which occupies nearly half the total area of the District. In the colony canal-irrigation is but little supplemented by wells, and the old wells in the canal tract have mostly fallen into disuse. The District contains 15,980 masonry wells, chiefly found in the riverain lands, all worked with Persian wheels by cattle, besides 332 lever wells, water-lifts, and unbricked wells.

The District is devoid of true forests; but the Government waste, not included in the colony, which is under the control of the Deputy-Commissioner, is still extensive. The largest area is the Thal desert, in the Sind-Sāgar Doāb, which covers about 400 square miles. A great deal of tree-planting has been done in the colony.

The only mineral product of any importance is the stone quarried from the Chiniot hills.

The town of Chiniot is famous for its carpentry and wood-carving, and ornamental articles of furniture are made of brass inlay and marquetry. Good saddlery and locks are made at Jhang and Maghiāna, and a great deal of cotton cloth is woven throughout the District. Preparing raw cotton for export is a flourishing business; and the District contains 10 cotton-ginning factories, 6 cotton-presses, 5 combined ginning and pressing factories, a combined ginning factory and flour-mill, a combined press and flour-mill, an iron foundry, and a flour-mill. The iron foundry and the flour-mill, which are situated at Lyallpur, were closed in 1904, but the rest of the mills and factories mentioned employed 1,220 hands in that year. They are all situated within the Chenāb Colony and also within the new Lyallpur District. Three of the ginning factories and one of the presses are at Chiniot Road, a small town that has sprung up at the railway station nearest Chiniot; and two of the combined ginning and pressing factories and the combined press and flour-mill are at Toba Tek Singh, while the rest are divided between LYALLPUR and GOJRA.

Trade and communications.

The town of Lyallpur is one of the chief centres of the wheat trade in India, and the District exports large quantities of wheat, cotton, oil-seeds, and other agricultural produce. Iron, timber, and piece-goods are the chief articles of import.

The Wazīrābād-Khānewāl branch of the North-Western Railway runs through the middle of the District, and carries the heavy export of agricultural produce from the Chenāb Colony. The Southern Jech Doāb Railway, which crosses the Chenāb 10 miles above Jhang, joins the former line in the south of the District. It carries the produce of the villages irrigated by the Jhelum Canal, and places the town of Jhang in communication with the main line. The total length of metalled roads is 15 miles and of unmetalled roads 1,795 miles. Of these, 5 miles of metalled and 58 miles of unmetalled roads are under the Public Works department, and the rest are maintained by the District board. The Jhelum is crossed by nine ferries, and the Chenāb by nineteen above and below its confluence with the Jhelum. There is but little traffic on these rivers.

There is no record of famine in Jhang District. Although the various droughts which have visited the Punjab in the past must have caused great mortality in cattle, famine on a large scale was impossible owing to the absence of unirrigated cultivation and the sparseness of the population. The construction of the Chenāb Canal has now not only made the District able to support a large population in perfect security, but has turned it into the principal granary of the Province.

Administration. The District is in charge of a Deputy-Commissioner, aided by three Assistant or Extra-Assistant Commissioners, of whom one is in charge of the District treasury. The District, as now constituted, is divided into three *tahsīls*, each in charge of a *tahsīldār*.

The Deputy-Commissioner as District Magistrate is responsible for criminal justice. Judicial work is under a District Judge, and both officers are supervised by the Divisional Judge of the Shāhpur Civil Division, who is also Sessions Judge. There are three Munsifs, two at head-quarters and one at Chiniot, and one honorary magistrate. Cattle-theft is the commonest form of serious crime.

The Siāl chiefs of Jhang appear to have taken a fourth of the produce in kind as their share. In 1831 Sāwan Mal's rule over the Multān Province began. His system of combined cash and kind rents enhanced by numerous cesses is described in the article on MULTĀN DISTRICT. The Kalowāl tract, which lay west of the Chenāb, was administered by Rājā Gulāb Singh; and as he exacted as much as he could in the shortest possible time, the development of this part of the District was greatly retarded.

In 1847–8 the first summary settlement was made before annexation. The basis was a reduction of 20 per cent. on the realizations of the Sikhs. At first the revenue was easily paid, but the sharp fall in prices which followed annexation caused great distress, and even desertion of the land. The second summary settlement, made in 1853, resulted in a reduction of 18 per cent. In Kalowāl the first assessment had broken down utterly, and was revised in three days by the Commissioner, Mr. Thornton, who reduced the demand from one lakh to Rs. 75,000 in 1851. In 1853 he remitted Rs. 12,000 more, and the remaining Rs. 63,000 was easily paid.

In 1855 the regular settlement was begun. Government land was demarcated, a process simplified by the readiness of the people to part with their land and its burdens on any terms. The demand was fixed at 2 lakhs, while Kalowāl (now in the Chiniot *tahsīl*, but then a part of Shāhpur District) was assessed at Rs. 33,000. Generally speaking, the demand was easily and punctually paid. A revised settlement was carried out between 1874 and 1880, fixed assessments being sanctioned for the flooded lands of the Chenāb and Jhelum, and a fluctuating assessment for the Rāvi villages, since transferred to Multān District. In certain parts of the District each well was assessed at a fixed sum. The total demand was 3·5 lakhs, an increase of 26 per cent. The rates of last settlement ranged from R. 0–8–0 to Rs. 1–6–4 on 'wet' land, the 'dry' rate being R. 0–8–0.

During the currency of this settlement the enormous Government waste between the Chenāb and Rāvi rivers, known as the Sandal Bār,

almost the whole of which is at present included in Jhang District, has come under cultivation by the aid of the Chenāb Canal. The present revenue rate in this tract is 8 annas per acre matured. The extension explains the recent enormous rise in the land revenue demand, which was 22·3 lakhs in 1903–4, almost the whole of the fluctuating demand being realized from the new cultivation in the Sandal Bār. The administration of the Government land was under a separate Colonization officer until 1907, but the old proprietary villages of the District came again under settlement in 1901. It was estimated that an increase of Rs. 1,12,000 would be taken; but this will probably be largely exceeded, owing to extensions of the Chenāb Canal and to the introduction of canal-irrigation on the right bank of the Chenāb from the Jhelum Canal.

The collections of land revenue alone and of total revenue are shown below, in thousands of rupees:—

	1880–1.	1890–1.	1900–1.	1903–4.
Land revenue . .	4,30	4,84	16,47	18,78
Total revenue . .	5,26	6,16	22,24	26,35

The District contains the three municipalities of JHANG-MAGHIĀNA, CHINIOT, and LYALLPUR, and the three 'notified areas' of AHMADPUR, SHORKOT, and GOJRA. Outside these, local affairs are entrusted to the District board. The income of the board, derived mainly from a local rate, was 3 lakhs in 1903–4, and the expenditure 2·5 lakhs. The largest item of expenditure was public works.

The regular police force consists of 831 of all ranks, including 149 municipal police, under a Superintendent, who usually has 3 inspectors under him. The village watchmen number 815. There are 11 police stations, 3 outposts, and 10 road-posts. The District jail at head-quarters has accommodation for 302 prisoners.

The percentage of literate persons in 1901 was 3·6 (6·3 males and 0·3 females), the District standing seventeenth among the twenty eight Districts of the Province in this respect. The proportion is highest in the Jhang *tahsīl*. The number of pupils under instruction was 2,243 in 1880–1, 4,686 in 1890–1, 6,108 in 1900–1, and 8,275 in 1903–4. In the last year the District possessed 5 secondary, 98 primary (public) schools, and one 'special' school, with 19 advanced and 210 elementary (private) schools. The proportion of girls is unusually large, there being 611 female scholars in the public, and 535 in the private schools. The only high school in the District is at Jhang town. The total expenditure on education in 1903–4 was Rs. 46,000, the greater part of which was met from Local funds and fees.

Besides the civil hospital and branch dispensary at Jhang-Maghiāna,

the District has 12 outlying dispensaries. In 1904 the number of cases treated was 132,374, of whom 2,201 were in-patients, and 6,395 operations were performed. The expenditure was Rs. 24,000, the greater part of which was contributed by Local and municipal funds.

The number of persons successfully vaccinated in 1903–4 was 30,073, representing 30 per 1,000 of the population. Vaccination is compulsory only in the municipality of Jhang-Maghiāna.

[D. C. J. Ibbetson, *Jhang District Gazetteer* (1883–4); and L. Leslie Jones, *Chenāb Colony Gazetteer* (1905); E. B. Steedman, *Jhang Settlement Report* (1882).]

Jhang Tahsīl.—*Tahsīl* of Jhang District, Punjab, lying between 31° 0′ and 31° 47′ N. and 71° 58′ and 72° 41′ E., with an area, since the formation of Lyallpur District in 1904, of 1,421 square miles. The Jhelum enters the *tahsīl* on the north-west and the Chenāb on the north-east, and they meet towards the south. The population in 1901 was 194,454. It contains the town of JHANG-MAGHIĀNA (population, 24,382), the head-quarters, and 448 villages. The land revenue and cesses in 1905–6 amounted to Rs. 2,56,000. The *tahsīl* extends into the Chenāb Colony on the east; and a strip of the Sandal Bār, still in its pristine state, lies between the rich villages of this part and the cultivated lowlands on either side of the Chenāb. Beyond these, waste alternates with cultivation, due to the farthest extensions of the Jhelum Canal, until the Jhelum lowlands are reached, studded with prosperous villages, situated among palm groves. The western border lies within the sandy desert of the Thal.

Jhang-Maghiāna.—Head-quarters of the District and *tahsīl* of Jhang, Punjab, situated in 31° 18′ N. and 72° 20′ E., on the Jech Doāb extension of the North-Western Railway. Population (1901), 24,382, of whom 12,189 are Hindus and 11,684 Muhammadans. The towns of Jhang and Maghiāna lie two miles apart, connected by metalled roads, but form a joint municipality. The Chenāb flows at a distance of about three miles to the west; but in the hot season the Kharora branch of the river runs close past both towns, and with its fine avenue of trees, three miles long, and handsome masonry bathing *ghāts*, adds a peculiar beauty to the neighbourhood. The country round is well wooded, and fine gardens abound. An inundation canal leaves the Kharora branch of the Chenāb near Jhang, and, passing round Maghiāna, empties itself into the same branch after a course of 5 miles. Maghiāna lies on the edge of the highlands, overlooking the alluvial valley of the Chenāb, while the older town of Jhang occupies the lowlands at its foot. Jhang is said to have been founded in the fifteenth century, and to have been destroyed by the river and refounded in the reign of Aurangzeb. It was taken by Ranjīt Singh in 1805. The Government offices and establishments have now been

removed to the higher site, and commerce has almost deserted Jhang, which is no longer a place of importance. Jhang-Maghiāna was constituted a municipality in 1867. The income during the ten years ending 1902-3 averaged Rs. 46,800, and the expenditure Rs. 44,200. In 1903-4 the income was Rs. 49,700, mainly derived from octroi; and the expenditure was Rs. 50,200. Maghiāna has a considerable trade in grain and country cloth, and manufactures leather, soap, locks and other brass-work. There is a civil hospital at Maghiāna, and a high school and a dispensary at Jhang.

Jhanida.—Subdivision and village in Jessore District, Bengal. *See* JHENIDA.

Jhanjhārpur.—Village in the Madhubanī subdivision of Darbhangā District, Bengal, situated in 26° 16′ N. and 86° 17′ E., on the Bengal North-Western Railway. Population (1901), 5,639. Its brass utensils, particularly the *panbatta* or box for holding betel-leaf and the *gangājali* or water-pot, have a local reputation.

Jhānsi District.—South-western District of the Allahābād Division, United Provinces, lying between 24° 11′ and 25° 50′ N. and 78° 10′ and 79° 25′ E., with an area of 3,628 square miles. The District consists of two portions, each roughly shaped like a pear, which are connected by a narrow strip of country. The northern portion lies east and west, and is bounded on the north by the States of Gwalior and Samthar and by Jālaun District; on the east by the Dhasān river, which separates it from Hamīrpur and from portions of the smaller Bundelkhand States; on the south by the State of Orchhā; and on the west by the States of Datiā, Gwalior, and Khaniādhānā. The southern boundary is extremely irregular, incorporating several *enclaves* of Native territory, while British villages are also enclosed in the adjacent States. The southern portion, which lies north and south, is bounded on the west by the Betwā river, which separates it from Gwalior; on the south by the Saugor District of the Central Provinces; and on the east by the Dhasān and Jamnī rivers, which divide it from the Bundelkhand States.

Physical aspects.

The District presents a great variety in its physical aspects, and includes some of the most beautiful scenery in the Provinces. The highest ground is in the extreme south, which extends to the two outer scarps of the Vindhyan plateau, running from the Betwā in a south-easterly direction and gradually breaking up into a confused mass of hills, parts of which approach a height of 2,000 feet above sea-level. Below the second scarp an undulating plain of black soil, interspersed with scattered hills and scored by numerous drainage channels, stretches north beyond the town of Lalitpur, and gradually becomes more rocky. Low red hills of gneiss then appear, with long ridges running from south-west to north-east. These continue in the northern portion of the District, especi

ally east of the Betwā, but gradually sink into another plain of dark soil. The slope of the country is from south-west to north-east, and the rivers flow generally in the same direction. The Betwā is the most considerable river, and after forming the western boundary of the southern portion divides it from the northern half, which it then crosses. Its principal tributaries, the Jamnī and Dhasān, form the eastern boundaries of the southern and northern parts of the District. The Pahūj is a small stream west of the Betwā. A striking feature of the Dhasān and of the Betwā, especially on the left bank, is the labyrinth of wild deep ravines, sometimes stretching 2 or 3 miles away from the river. The numerous artificial lakes formed by embanking valleys add to the natural beauty of the scenery. The largest are at Tālbahat, Barwā Sāgar, Arjār, Pachwārā, and Magarwārā.

The oldest rock is gneiss, which occupies the greater part of the District. It forms the massive granitic ridges described above, which are traversed by gigantic quartz reefs, and often crossed at right angles by basic dikes of dolerite or diabase. South of Lalitpur the Upper Vindhyan massive sandstones, with a bed of Kaimur conglomerate near the base, rest directly on the gneiss, but in places the Bijāwar and Lower Vindhyan series intervene. The former of these includes sandstones, limestones, and slates, some of the beds containing a rich hematitic ore, while copper has been found in small quantities. The Lower Vindhyans consist principally of sandstone and shale. The fringe of the great spread of basalt constituting the Mālwā trap just reaches the extreme south-east of the District, while a few outlying patches are found farther north, and the cretaceous sandstones of the Lameta group, which often underlie the trap, are met near the basalt[1].

The flora of the District resembles that of Central India. A considerable area is 'reserved' or 'protected' forest, which will be described later; but there is a serious deficiency of timber trees, and the general appearance is that of low-scrub jungle. Grazing is abundant, except in unusually dry years.

In the more level portion of the District, hog, antelope, and *nīlgai* do great damage to the crops. Leopards, *chītal*, *sāmbar*, hyenas, wolves, and occasionally a lynx are found in the northern hills, while farther south tigers, bears, wild dogs, and the four-horned antelope are met with, and at rare intervals a wild buffalo is seen. Bustard, partridge, sand-grouse, quail, and plover are the commonest game-birds, while snipe, duck, and geese haunt the marshy places and lakes in the cold season. Mahseer and other kinds of fish abound in the larger rivers.

The climate of the District is hot and very dry, as there is little shade and the radiation from bare rocks and arid wastes is excessive. It is,

[1] H. B. Medlicott, *Memoirs, Geological Survey of India*, vol. ii, pt. 1.

however, not unhealthy, except in the autumn; and during the rains and short cold season the climate is far from unpleasant. In the south, owing to its greater elevation, the temperature is slightly lower than in the northern part.

The annual rainfall averages about 31 inches, ranging from 34 inches in the north-west to about 41 in the south-east. In 1868–9 the fall amounted to only 15 inches, but in 1894–5 it was nearly 60 inches. The seasonable distribution of the rain is, however, of more importance than large variations in the total amount. Disastrous hailstorms are common in the cold season, and nearly 100 head of cattle were killed in a single storm in 1895.

History.

Jhānsi forms part of the tract known as British BUNDELKHAND, and its history is that of the Chandel and Bundelā dynasties which once ruled that area. The earliest traditions point to the occupation of the northern portion by Parihār and Kāthī Rājputs, and of the south by Gonds. The Chandels of MAHOBĀ rose into power east of this District in the ninth century, but extended their power over it in the eleventh century, and have left many memorials of their rule in temples and ornamental tanks. After the defeat of the last great Chandel Rājā by Prithwī Rāj in 1182, and the raids of the Muhammadans under Kutb-ud-dīn in 1202–3 and Altamsh in 1234, the country relapsed into anarchy. The Khangārs, an aboriginal tribe, who are said to have been the servants of the Chandels and are now represented by a menial caste, held the tract for some time and built the fort of Karār, which stands just outside the British border in the Orchhā State. The Bundelās rose to power in the thirteenth or fourteenth century and expelled the Khangārs. One of their chiefs, named Rudra Pratāp, was recognized by Bābar, and his son, Bhartī Chand, founded the city of Orchhā in 1531. The Bundelā power gradually extended over the whole of this District and the adjacent territory, and the authority of the Mughals was directly challenged. In the early part of the seventeenth century the Orchhā State was ruled by Bīr Singh Deo, who built the fort at Jhānsi. He incurred the heavy displeasure of Akbar by the murder of Abul Fazl, the emperor's favourite minister and historian, at the instigation of prince Salīm, afterwards the emperor Jahāngīr. A force was accordingly sent against him, which was defeated in 1602. On the accession of Jahāngīr in 1605, Bīr Singh was pardoned and rose to great favour; but when, on the death of the emperor in 1627, Shāh Jahān mounted the throne, Bīr Singh revolted again. The rebellion was unsuccessful, and Bīr Singh died shortly after. The south of the District had already fallen into the hands of another descendant of Rudra Pratāp, who founded the State of Chanderī. In the latter half of the seventeenth century a third Bundelā State was founded east of the District by Champat Rai, whose

son, Chhatarsāl, extended his authority over part of Jhānsi. On his death, about 1734, the Marāthās obtained the greater part of the District under his will, and in 1742 forcibly extorted most of the remainder from the Rājā of Orchhā. Jhānsi remained under the Peshwās for some thirty years, though in the south the Rājās of Chanderī still maintained partial independence. After that period the Marāthā governors of the north of the District made themselves independent in all but name. In 1817 the Peshwā ceded to the East India Company his sovereign rights over the whole of Bundelkhand, and in the same year Government recognized the hereditary title of the Marāthā governor and his descendants to their existing possessions. The title of Rājā was granted to the Jhānsi house in 1832 for services rendered in connexion with the siege of Bharatpur. In 1839 the Political Agent in Bundelkhand was obliged to assume the administration in the interests of civil order, pending the decision of a dispute as to succession; and the management was not restored till 1842, when most of the District was entrusted to Rājā Gangādhar Rao. The Rājā died childless in 1853, when his territories lapsed to the British Government and were formed into a District of Jhānsi. Meanwhile the Chanderī State, which comprised the south of the District and some territory west of the Betwā, had also been acquired. A dissolute and inefficient ruler, named Mūr Pahlād, who had succeeded in 1802, was unable to control his vassal Thākurs, who made constant plundering expeditions into the neighbouring territory. In 1811 their incursions on the villages of Gwalior provoked Sindhia to measures of retaliation, and Mur Pahlād was deposed, but received a grant of thirty-one villages. In 1829 another revolt was headed by the former Rājā. It was promptly suppressed, and the State was divided, Mūr Pahlād receiving one-third. In 1844, after the battle of Mahārājpur, Sindhia ceded to the British Government all his share of the Chanderī State as a guarantee for the maintenance of the Gwalior Contingent. The territory so acquired was constituted a District called Chanderī, with the stipulation that the sovereignty of the Rājā and the rights of the inhabitants should be respected.

In 1857 there was considerable discontent in both the Jhānsi and Chanderī Districts. The widow of Gangādhar Rao was aggrieved, because she was not allowed to adopt an heir, and because the slaughter of cattle was permitted in Jhānsi territory. Mardān Singh, the Rājā of Bānpur, had for some time resented the withholding of certain honours. The events of 1857 accordingly found the whole District ripe for rebellion. On June 5 a few men of the 12th Native Infantry seized a small fort in the cantonment containing the treasure and magazine. Many European officers were shot the same day. The remainder, who had taken refuge in the main fort, capitulated a few

days after and were massacred with their families, to the number of 66 persons, in spite of a promise of protection sworn on the Korān and Ganges water. The Rānī then attempted to seize the supreme authority; but the usual anarchic quarrels arose between the rebels, and the whole country was plundered by the Orchhā leaders. The Bundelās also rose in the south; and Lalitpur, the head-quarters of the Chanderī District, was abandoned by the British officials, who suffered great hardships, but were not murdered. The Rājā then asserted complete independence and extended his rule into parts of Saugor District, but was driven back to Chanderī by Sir Hugh Rose in January, 1858. On March 3 the British army forced the passes in the south of the District and marched north. Jhānsi was reached on March 20, and during the siege Tāntiā Topī, who attempted a diversion, was completely defeated. The town was assaulted on April 3, and the fort was captured on the 5th. Sir Hugh Rose had been compelled to march forward to Jālaun District, leaving only a few troops at Jhānsi, and disturbances soon broke out again, and increased when news of the Gwalior revolution was received. The Marāthā chief of GURSARAI, in the north of the District, held out for the British, and in July the Bānpur Rājā gave himself up. The south and the west of the District, however, were not cleared till late in the year. In 1861 the name of the Chanderī District was changed to Lalitpur; and in the same year the portions of that District west of the Betwā, together with Jhānsi town and fort, were ceded to Sindhia. In 1886 Jhānsi town and fort, with 58 villages, were made over to the British by Sindhia in exchange for the Gwalior fort, Morār cantonment, and some other villages. The two Districts of Jhānsi and Lalitpur were united in 1891; but the area included in the latter forms an administrative subdivision.

The District is exceptionally rich in archaeological remains. Chandel memorials in the form of temples and other buildings are found in many places, among which may be mentioned CHĀNDPUR, DEOGARH, DŪDHAI, LALITPUR, MADANPUR, and SĪRON. At Erachh (Irich) the fragments of ancient buildings have been used in the construction of a fine mosque, which dates from 1412.

Population.

Jhānsi District contains 9 towns and 1,331 villages. Population had been increasing steadily for some time, but received a check in the series of bad years between 1891 and 1901. The numbers at the last four enumerations were as follows: (1872) 530,487, (1881) 624,953, (1891) 683,619, and (1901) 616,759. There are six *tahsīls*—JHĀNSI, MAU, GARAUTHĀ, MOTH, LALITPUR, and MAHRONĪ—the head-quarters of each being at a place of the same name. The principal towns are the municipalities of JHĀNSI, the administrative head-quarters of the District, MAU-RĀNĪPUR, and LALIT-

PUR. The following table gives the chief statistics of population in 1901:—

Tahsil.	Area in square miles.	Number of Towns.	Number of Villages.	Population.	Population per square mile.	Percentage of variation in population between 1891 and 1901.	Number of persons able to read and write.
Jhānsi	499	3	210	145,371	291	− 0.2	9,769
Mau	439	1	164	100,298	228	− 13.3	3,743
Garauthā	466	...	153	66,963	144	− 24.7	2,766
Moth	279	2	136	55,638	199	− 5.8	1,631
Lalitpur	1,058	2	368	144,638	137	− 7.9	4,097
Mahronī	887	1	300	103,851	117	− 11.3	2,927
District total	3,628	9	1,331	616,759	170	− 9.8	24,933

Nearly 93 per cent. of the population are Hindus and only 5 per cent. Muhammadans. Jains number 10,760, forming 1·7 per cent. of the total—a higher proportion than in any other District of the United Provinces. The density of population is lower than in any part of the United Provinces, except the Kumaun Division, and the District suffered heavily from famine in 1895–7 and again in 1900. More than 99 per cent. of the people speak Western Hindī, chiefly of the Bundelī dialect.

Chamārs (leather-dressers and cultivators), 76,000, are the most numerous Hindu caste, followed by Kāchhīs (cultivators), 58,000; Brāhmans, 58,000; Ahīrs (graziers and cultivators), 52,000; Lodhas (agriculturists), 47,000; and Rājputs, 35,000. Among castes peculiar to this part of India may be mentioned the Khangārs (9,000), Basors (9,000), and Sahariās (7,000); the two former being menials, and the last a jungle tribe. Shaikhs (13,000) are the most important Musalmān tribe. About 56 per cent. of the total population are supported by agriculture and 8 per cent. by general labour. Rājputs, Brāhmans, Ahīrs, Lodhas, and Kurmīs are the chief proprietary castes, the first named being largely of the Bundelā clan.

In 1901 there were 777 native Christians, of whom 355 belonged to the Anglican communion and 267 were Roman Catholics. The Church Missionary Society has had a station at Jhānsi since 1858, and the American Presbyterian Mission since 1886.

The characteristic feature of Jhānsi, as of all the Bundelkhand Districts, is its liability to alternate cycles of agricultural prosperity and depression. It contains the usual soils found in this tract. *Mār* and *kābar* are dark soils, the former being distinguished by its fertility and power of retaining moisture, while *kābar* is less fertile, becomes too sticky to plough when wet, and dries very quickly, spliting into hard blocks. *Parwā* is a brownish or yellowish soil more nearly resembling the loam of the Doāb. *Mār*, the commonest variety, covers a large area in the centre of both the

Agriculture.

northern and southern portions of the District, and is also found on the terraces of the Vindhyas. It produces excellent wheat in favourable seasons, but is liable to be thrown out of cultivation by the growth of *kāns* (*Saccharum spontaneum*). This is a tall thin grass which quickly spreads when tillage is relaxed; its roots reach a depth of 6 or 7 feet, and finally prevent the passage of the plough. After a period of ten or fifteen years *kāns* gradually gives way to other grasses, and the land can again be cultivated. In the neck of land which connects the two portions of the District, and for some distance south of the narrowest point, a red soil called *rākar patrī* is found, which usually produces only an inferior millet. Interspersed among these tracts of poor soils little oases are found, generally near village sites and in valleys, which are carefully manured and regularly watered from wells sunk in the rock. The spring crops are peculiarly liable to attacks of rust in damp, cloudy weather. Along the rivers there is a little alluvial land, and near the lakes in some parts of the District rice can be grown. In the north-west, field embankments are commonly made, which hold up water for rice cultivation and also serve to stop the spread of *kāns*.

The greater part of the land is held on the usual tenures found in the United Provinces. In the Lalitpur subdivision nearly two thirds of the whole area is included in *zamindāri* estates, while *pattīdāri* holdings are commoner in the rest of the District. A peculiar tenure, called *ubāri*, is also found. This originated from grants of land given in lieu of a definite annual sum, or *hakk*. Where the annual value of the land granted exceeded the *hakk*, the excess (*ubāri*) was paid as revenue. The tenure is thus equivalent to an abatement of the full revenue chargeable. Some of the *ubārī* tenures, called *batota*, date from the occupation of Chanderī by Sindhia and are not liable to resumption; but the others, which were mainly granted after the British occupation, are liable to be resumed for misconduct, on the death of an incumbent (though such resumptions are rare), or if any part of the *ubāri* estate is transferred. The main agricultural statistics for 1903-4 are given below, in square miles:-

Tahsīl.	Total.	Cultivated.	Irrigated.	Cultivable waste.
Jhānsi	499	171	28	180
Mau	439	190	13	149
Garauthā	466	194	...	147
Moth	279	118	2	105
Lalitpur	1,058	244	38	403
Mahronī	887	233	22	357
Total	3,628	1,150	103	1,401

NOTE.—Statistics for the Jhānsi, Mau, and Moth *tahsīls* are for 1902-3.

Jowār covered 326 square miles, *kodon* and other small millets 223, and gram 196. Wheat follows in importance with 89 square miles, and barley, rice, maize, and *bājra* are the remaining food-crops. Oil-seeds were grown on 206, and cotton on 46 square miles.

The methods of cultivation in Bundelkhand are conspicuously poor, and the people easily yield to adverse circumstances. There has thus been no improvement in agricultural practice since the commencement of British rule. Within the last twenty years considerable loss has been caused by the introduction of artificial dyes in place of *āl* (*Morinda citrifolia*). The *āl* plant was grown on the best land, and required careful cultivation, which is the best preventive of a spread of *kāns*. The losses incurred by blight in 1893 and 1894 have also led to the replacement of wheat by the less valuable gram, but there has been a slight recovery. The steps taken to extend irrigation will be described later. Advances under the Land Improvement and Agriculturists' Loans Acts are freely taken, especially in bad seasons. A total of nearly 3 lakhs was advanced during the ten years ending 1900, and Rs. 60,000 in the next four years.

The cattle are smaller and hardier than in the Doāb, but the best animals are imported from the neighbourhood of the Ken river or from Gwalior. Attempts were made to improve the breed about 1870; but the Nāgor and Hissār bulls which were imported were too large and too delicate. There is no horse-breeding in the District, and the ponies are of a very poor type. Donkeys are extensively used as beasts of burden. The sheep are of the ordinary inferior kind; but the goats bred along the banks of the Dhasān are celebrated for their size and the quantity of milk which they give.

In years of well-distributed rainfall, *mār* and *kābar* require no artificial sources of irrigation. Thus in 1903-4 only 103 square miles were irrigated in the whole District. Wells supplied 91 square miles, tanks 7, and canals 3. The well-irrigation is chiefly found in the red-soil tracts of the Jhānsi *tahsīl* and the northern part of the Lalitpur subdivision. Tanks are very numerous, and the embankments of about thirty are maintained by the Public Works department, with 38 miles of small distributaries. New projects for making tanks are being carried out, and these serve a useful purpose by maintaining a high water-level, even where they are not used for irrigation directly. Much has already been done in repairing old embankments and in deepening lakes and improving the irrigation channels. A canal is taken from the Betwā at Parīchhā, where the river is dammed; but it irrigates a very small area in Jhānsi, chiefly serving JĀLAUN. A second dam is under construction higher up at Dukwā, which will impound a further supply. Water from wells is usually raised by means of the Persian wheel.

Government forests cover 189 square miles, of which 141 are situated in the Lalitpur subdivision. There is also a large area of private forest. The 'reserved' forests produce little timber; but they supply the wants of the villages in the neighbourhood, as well as some quantity of bamboos for export, and are of value for climatic reasons. Grass is especially important; and minor products, such as honey, lac, gum, catechu, and various fruits and roots, are also gathered by the jungle tribes. The chief trees include several kinds of acacia, *Adina cordifolia*, *Anogeissus latifolia*, *Diospyros melanoxylon*, *Grewia vestita*, various figs, *Lagerstroemia parviflora*, teak, and *Terminalia tomentosa*. The *mahuā* (*Bassia latifolia*) grows well. During years of famine the forests are thrown open to grazing, and also supply roots and berries, which are eaten by the jungle tribes.

The most valuable mineral product is building stone, which is quarried from the Upper Vindhyan sandstone, and exported. Steatite is worked in one place, and iron is smelted after indigenous methods in a few small furnaces. The roads are largely metalled with disintegrated gneiss.

Trade and communications.

Coarse cotton cloth, called *khāruā*, is still woven at a number of places: and at Erachh more ornamental articles, such as chintz and large kerchiefs dyed with spots, are turned out. Small woollen rugs are made at Jhānsi, and some good silk is woven at the same place. Mau, Jhānsi, and Marаurā are noted for brass work. The railway workshops at Jhānsi city employed 2,169 hands in 1903, and there are a small cotton-gin and an ice factory.

The most valuable exports of the District are oilseeds, *ghī*, and *pān*. Grass, minor forest products, and road metal are also exported, and hay was baled in large quantities for the Military Department during the Tīrāh expedition of 1895 and the South African War. There is no surplus of grain, except in very prosperous years. Sugar, salt, kerosene oil, and grain are the chief imports. Jhānsi city, Mau-Rānipur, Lalitpur, and Chīrgaon are the principal trade centres, and Cawnpore and Bombay absorb most of the trade. There is, however, a considerable amount of local traffic with the adjacent Native States, and also some through trade.

Jhānsi city has become an important railway centre. The main line of the Indian Midland Railway (now amalgamated with the Great Indian Peninsula) enters the south of the District, and divides into two branches at Jhānsi, one running north-west to Agra and the other north-east to Cawnpore. A branch line from Jhānsi crosses the south-east of the northern division of the District. There are 1,295 miles of roads, a greater length than in any other District of the United Provinces. Of the total, 340 miles are metalled and are maintained by the

Public Works department, but the cost of 160 miles is charged to Local funds. There are avenues of trees along 364 miles. The principal routes are: the road from Cawnpore to Saugor through Jhānsi and Lalitpur, which traverses the District from end to end; and the roads from Jhānsi to Gwalior on the north-west, and to Nowgong on the south-east.

Famine.

The District is specially exposed to blights, droughts, floods, hailstorms, and their natural consequence, famine, which is generally accompanied by disastrous epidemics of fever and cholera. No details are known of the famines which must have periodically devastated this tract; but it is commonly said that famine may be expected in Bundelkhand every fifth year. The first serious famine after the Mutiny occurred in 1868–9, and it was probably the worst in the century. The rains of 1868 ceased prematurely and the autumn harvest was almost a complete failure. Poorhouses were opened, and subsequently relief works were started, which took the form of roads, bridges, and irrigation embankments in Jhānsi District, and the excavation of tanks and construction of embankments in Lalitpur. The total expenditure on this form of relief was nearly 3 lakhs, and the number of workers at one time rose above 26,000. Epidemics of small-pox and cholera followed; and the climax came when the rains of 1869 broke, and the roads, which were at that time unmetalled, became impassable. Excluding several partial losses of the harvest, the next great famine took place in 1896–7. Since the autumn of 1893 the autumn crops had been poor, and the spring crops even poorer, while *kāns* had spread rapidly. The rains of 1895 were deficient, and relief works were opened in February, 1896. In May 42,000 persons were being relieved, and a terrible epidemic of cholera added to the loss of life. The works were almost abandoned by the middle of July, and up to the end of August prospects were fair. The monsoon, however, ceased abruptly, prices rose with alarming rapidity, and the relief works had to be reopened. The autumn was also marked by a virulent epidemic of fever, which attacked even the well-to-do. The distress became most acute in May, 1897, when nearly 100,000 persons were being relieved. Large suspensions and remissions of revenue were made, and relief works were closed in September, 1897. In 1899 a short rainfall again caused great distress in the red soil area, and the effects were increased by the high prices due to famine in Western India.

Administration.

The *tahsīls* of Lalitpur and Mahronī form the subdivision of Lalitpur, which is in charge of a member of the Indian Civil Service, assisted by a Deputy-Collector. The ordinary District staff consists of the Collector, a Joint-Magistrate, and three Deputy-Collectors recruited in India. The Forest officer is in charge of the whole of the Bundelkhand forest division.

There are two District Munsifs, and a Sub-Judge for civil work. The District and Sessions Judge has jurisdiction over the neighbouring District of Jālaun, and a Special Judge is at present engaged in inquiries under the Bundelkhand Encumbered Estates Act. The District is notorious for outbreaks of dacoity in bad times, and crimes of violence are not infrequent; but generally speaking, crime is light.

Up to 1891 the present Lalitpur subdivision formed a separate District, and the fiscal history of the two portions of what is now the District of Jhānsi is thus distinct. After the lapse of Jhānsi in 1853 the three Districts of Jhānsi, Chanderī (or Lalitpur), and Jālaun were placed in charge of Deputy-Superintendents, under a Superintendent who was subordinate to the Commissioner of the Saugor and Nerbudda Territories at Jubbulpore. In 1858 these Districts (including Hamīrpur up to 1863) were detached from Jubbulpore and administered as a Division in the Province of Agra on the non-regulation system. Finally, in 1891, the Districts were included in the Allahābād Division and were brought under the ordinary laws, many of which had already been applied.

In Jhānsi District proper the Marāthā revenue system was *ryotwāri*, and the nominal demand was a rack rent, which could be paid only in very favourable seasons. Arrears were not, however, carried over from one year to another. The early settlements of these portions of the District which were acquired between 1842 and 1844 were of a summary nature, and only for short periods. The first regular settlement of the whole commenced with a survey in 1854, but was interrupted by the Mutiny and not completed till 1864. Proprietary rights had been partly introduced between 1839 and 1842, and the sale of land by decree of the civil courts followed in 1862. The settlement, which was made by several officers on different principles, resulted in an assessment of 4·3 lakhs, as compared with a previous demand of 5·6 lakhs, in addition to about Rs. 50,000 due on account of *ubārīs*. The demand was undoubtedly reasonable; but the rigid system of collection and the freedom of sale of land were new ideas that were not grasped by the people. Some landowners had been in debt since the days of Marāthā rule. After the Mutiny, revenue was collected from many from whom it had already been extorted by the Orchhā or Jhānsi rebels. In 1867 the crops failed, and in 1868-9 there was famine and great loss of cattle. In 1872 many cattle were again lost from murrain. Although the settlement had appeared light, it became necessary to re-examine the condition of the District in 1876. After much discussion the Jhānsi Encumbered Estates Act (XVI of 1882) was passed, and a Special Judge appointed, who was empowered to examine claims and reduce excessive interest. The sale of a whole estate operated as a discharge in bankruptcy to extinguish all debt due. Altogether, 1,475

applications were tried, and out of a total claim of 16·6 lakhs the Judge decreed 7·6 lakhs. More than 90 per cent of the amount decreed was paid in full: namely, 12½ per cent. in cash, 46 per cent. by loan from Government, and 32 per cent. by sale of land, only 9½ per cent. being discharged under the insolvency clause. Many estates were cleared by sale of a portion only. A striking feature of the proceedings was the rapid rise in the value of land. The next revision of settlement was made between 1889 and 1892. This was carried out in the usual way by assessing on the actual rent-rolls, corrected where necessary by applying the rates ascertained for different classes of soil. The total revenue was raised from 4·9 to 5·5 lakhs.

In the Lalitpur District conditions were different, for *zamīndāri* rights existed, except where the Marāthās had extinguished them. The early British settlements were of a summary nature, and for short periods; and though nominally based on recorded rentals or customary rates, a system of auction to the highest bidder was sometimes followed, with disastrous results. The first regular settlement was commenced in 1853, but was interrupted by the Mutiny, and was not completed till 1869. The methods employed were a compromise between the valuation of villages by applying rates found to be paid for different classes of soil, and the valuation of the 'assets' actually recorded. The result was a reduction from 1·8 to 1·5 lakhs. This settlement came under revision in 1896, and the revenue was raised to 1·6 lakhs, though this was only to be reached by degrees, and the initial demand was 1·4 lakhs.

The revenue demand for the whole District was thus 7 lakhs when the famine of 1896–7 broke out. The special legislation of 1882 had only had a temporary effect, and the District has now been brought under the provisions of the Bundelkhand Encumbered Estates Act. The Land Alienation Act has also been applied, and transfers are restricted in the case of land held by agricultural tribes. Summary reductions of revenue brought down the demand to 6·3 lakhs in 1902–3, or less than 5 annas per acre, varying from 1 anna to nearly 12 annas in different parts. In 1903 a new settlement was commenced under the special system, by which the demand will be liable to revision every five years.

Collections on account of land revenue and total revenue have been, in thousands of rupees:—

	1880–1.	1890–1.	1900–1.	1903–4.
Land revenue .	5,71	6,18	6,12	6,34
Total revenue .	7,30	9,87	9,77	9,01

There are three municipalities, and six towns are administered under

Act XX of 1856. Outside of these, local affairs are administered by the District board, which had an income of 1·7 lakhs in 1903–4, chiefly derived from a grant from Provincial revenues. The expenditure included a lakh devoted to roads and buildings.

The District Superintendent of police has two Assistants, one of whom is posted to Lalitpur. The ordinary force, which is distributed in 39 police stations, includes 7 inspectors, 185 subordinate officers, and 784 men, besides 215 municipal and town police, and 1,528 rural and road police. A Superintendent of Railway Police also has his head-quarters at Jhānsi city. The District jail contained a daily average of 267 prisoners in 1903.

Jhānsi takes a high place in regard to the literacy of its inhabitants, of whom 4 per cent. (7·7 males and 0·3 females) could read and write in 1901. The number of public schools fell from 98 in 1880–1 to 85 in 1900–1, but the number of pupils increased from 2,537 to 2,962. In 1903–4 there were 167 such schools with 5,982 pupils, of whom 146 were girls, besides 39 private schools with 529 pupils. Two schools are managed by Government and 133 by the District and municipal boards. All the schools but two are primary. The total expenditure on education in 1903–4 was Rs. 41,000, of which Local funds provided Rs. 37,000, and fees Rs. 3,000.

There are 10 hospitals and dispensaries, with accommodation for 170 in-patients. About 62,000 cases were treated in 1903, including 1,383 in-patients, and 3,000 operations were performed. The total expenditure was Rs. 15,000, chiefly met from Local funds.

In 1903–4, 23,000 persons were successfully vaccinated, representing a proportion of 38 per 1,000 of population. Vaccination is compulsory only in the Jhānsi cantonment and in the municipalities.

[*District Gazetteer* (1874, under revision). W. H. L. Impey and J. S. Meston, *Settlement Report, excluding Lalitpur* (1893); H. J. Hoare, *Settlement Report, Lalitpur subdivision* (1899); P. C. Mukherji, *Antiquities in the Lalitpur District* (1899). A. W. Pim, *Final Settlement Report, including Lalitpur* (1907).]

Jhānsi Tahsīl.—Head-quarters *tahsīl* of Jhānsi District, United Provinces, conterminous with the *pargana* of the same name, lying between 25° 8′ and 25° 37′ N. and 78° 18′ and 78° 53′ E., with an area of 499 square miles. Population fell from 145,680 in 1891 to 145,371 in 1901, the rate of decrease being the lowest in the District. There are 210 villages and three towns, Jhānsi (population, 55,724), the District and *tahsīl* head quarters, and Barwā Sāgar (6,355) being the largest. The demand for land revenue in 1903–4 was Rs. 1,20,000, and for cesses Rs. 21,000. The density of population, 291 persons per square mile, is considerably above the District average. This *tahsīl* is the best and most stable in a very precarious District. The

Pahūj forms part of the western boundary; and the Betwā, after flowing along the south-east, crosses Native territory and then traverses the northern portion of the *tahsīl*, giving off the Betwā Canal. In the north lies a good tract of *kābar* or black soil and *parwā* or loam; this area is thickly populated and closely cultivated, while field embankments to hold up water are common. About the centre of the *tahsīl* the country changes to a broken tract of hilly uplands, and the soil is stony and poor, but is manured near the village sites and irrigated from wells worked by the Persian wheel. Farther south jungle is more common, and the people depend largely on the pasturing of cattle. In 1902–3 the area under cultivation was 171 square miles, of which 28 were irrigated, chiefly from wells.

Jhānsi City.—Administrative head-quarters of the District and *tahsīl* of the same name, with cantonment, in the United Provinces, situated in 25° 27′ N. and 78° 35′ E., on the road from Cawnpore to Saugor, and on the Great Indian Peninsula Railway; 799 miles by rail from Calcutta, and 702 from Bombay. Under Native rule the population of Jhānsi was about 30,000 in 1872 and 33,000 in 1881. After its cession in 1886, population rose to 53,779 in 1891 and 55,724 in 1901. Hindus numbered 41,029 in 1901 and Musalmāns 11,983, while there were about 2,000 Christians. The population in municipal limits was 47,881 and in cantonments 7,843.

Jhānsi city, which is sometimes known as Balwantnagar, owes its foundation to Bīr Singh Deo, Rājā of Orchhā, who built a fort here in 1613. A town sprang up and remained in the possession of the Bundelās till 1742, when it was seized by the Marāthās, who had already acquired property in the neighbourhood under the will of Chhatarsāl. They added to the fort, and the town continued to be the seat of a governor. The rapid growth of Jhānsi during this period was partly due to the forcible removal of people from other places. It was subsequently held for a few months by Shujā-ud-daula, Nawāb of Oudh, and was wrested from him by Anūp Giri Gosain of Moth, from whom it passed to the Rājā of Orchhā, and in 1766 was again brought under Marāthā rule. The British acquired sovereign rights from the Peshwā in 1817; and in 1853 the State of Jhānsi lapsed in default of heirs, when the city became the head-quarters of a Superintendent subordinate to the Commissioner of the Saugor and Nerbudda Territories. The Mutiny history has been given in that of Jhānsi District. In 1861 the city, with a large tract adjoining it, was ceded to Sindhia; and the head-quarters of the District, called Jhānsi Naoābād ('newly-founded'), included only a small village, with the civil station and cantonment. Jhānsi then became the headquarters of a *Sūbah* of the Gwalior State, but in 1886 it was restored to the British in exchange for the Gwalior fort and Morār cantonment.

Jhānsi is picturesquely situated round the fort, which crowns a rocky hill. It is a walled city, but has lately been opened up by roads, and a spacious, handsome market-place, called Hardyganj after a recent District officer, has been constructed. An excellent water-supply is obtained from five large wells sunk in the rock towards the close of the eighteenth century. Besides the ordinary courts there are few public buildings, the finest being a hospital built a few years ago. There are many small temples, but none of striking appearance, and part of the old palace of the Rājā is occupied by the police station and a school. Jhānsi is the head-quarters of a Superintending and of an Executive Engineer in the Irrigation branch, and of an Executive Engineer in the Roads and Buildings branch. It is also the chief station of the Church Missionary Society and the American Presbyterian Mission in the District.

A municipality was constituted in 1886. During the ten years ending 1901 the income and expenditure averaged Rs. 48,000 and Rs. 47,000 respectively. In 1903–4 the income was Rs. 73,000, chiefly from octroi (Rs. 56,000); and the expenditure was Rs. 68,000, including conservancy (Rs. 19,000), public safety (Rs. 12,000), administration and collection (Rs. 10,000), and roads and buildings (Rs. 4,000). The income and expenditure of cantonment funds during the ten years ending 1901 averaged Rs. 17,000, and in 1903–4 were Rs. 24,000 and Rs. 21,000 respectively. The usual garrison includes British and Native infantry, Native cavalry, and artillery. Jhānsi is the chief centre in the District for the collection and distribution of agricultural products. Its trade has improved greatly with the extension of railways, which radiate from it in four different directions. There are also small manufactures of brass-ware, fine silk, and coarse rugs. The railway workshops employed over 2,000 hands in 1903, and a small cotton gin and ice factory are situated here. A private firm supplies hay pressed at Jhānsi to the military authorities in many parts of the Eastern Command. The municipality maintains three schools and aids twelve others, with a total attendance of 994, besides the District school, which has about 160 pupils.

Jhānzi.—River of Assam, which rises near Mokokchung in the Nāgā Hills, and, after a northerly course through Sibsāgar District, falls into the Brahmaputra. Its total length is 71 miles, and in its course through the plains it forms the boundary between the subdivisions of Sibsāgar and Jorhāt. In the dry season it becomes very shallow, but during the rains boats of 4 tons burden can proceed as far as the foot of the hills. Molasses, tobacco, salt, oil, and other articles of commerce are brought up the river in the rains and sold or exchanged for betel-nuts. Tea used formerly to be sent down stream to Jhānzimukh, but most of it is now exported by rail. An area of

about 30 square miles in the Simaluguri *mauza* is injured by the floods of the river, but there are some compensating advantages, as the silt is said to have a fertilizing effect. The Jhānzi is crossed by a bridge on the Assam-Bengal Railway, and by four ferries.

Jhariā.—Coal-field in Mānbhūm District, Bengal. *See* MĀNBHŪM.

Jhelum District (*Jehlam*).—District in the Rāwalpindi Division of the Punjab, lying between 32° 27′ and 33° 15′ N. and 72° 32′ and 73° 48′ E., with an area of 2,813 square miles. Its length from east to west is 75 miles, its breadth increasing from 2 miles in the east to 55 in the west. It is bounded by the Districts of Shāhpur and Attock on the west, and by Rāwalpindi on the north; while the Jhelum river separates it from Kashmīr territory on the north-east, and from Gujrāt and Shāhpur on the south-east and south.

Physical aspects.

The District falls naturally into three divisions. Of these the north-eastern, which includes the Chakwāl *tahsīl* and the narrow Pabbi tract in the north of the Jhelum *tahsīl*, is a wide and fertile plateau ranging from 1,300 to 1,900 feet above the sea, with a decided slope to the north-west, until at the Sohān river it reaches the boundary of the District. This plateau is intersected by numerous ravines, which, with the single exception of the Bunhā torrent on the east, drain into the Sohān. To the south it culminates in the SALT RANGE, which runs in two main ridges from east to west, now parallel, now converging, meeting in a confused mass of peaks east of Katās and opening out again. Between these ranges is a succession of fertile and picturesque valleys, set in oval frames by the hills, never more than 5 miles in width and closed in at either end. The Salt Range runs at a uniform height of 2,500 feet till it culminates in the peak of Chail (3,701 feet). At the eastern end of the Salt Range two spurs diverge north-eastwards. dividing the Jhelum *tahsīl* into three parallel tracts. The northernmost of these, the Pabbi, has already been described. The central tract, lying between the Nīli and the Tilla spurs, is called the Khuddar, or 'country of ravines.' The whole surface seems to have been crumpled up and distorted by converging forces from the north and south. Lastly, south of the Tilla range, lies the riverain tract, which extends along the river from Jhelum town in the north-east to the Shāhpur border. Broken only near Jalālpur by a projecting spur of the Salt Range proper, this fertile strip has a breadth of about 8 miles along the southern boundary of the Jhelum and Pind Dādan Khān *tahsīls*.

The greater part of the District lies on the sandstones and conglomerates of the Siwālik series (Upper Tertiary), but towards the south the southern scarp of the SALT RANGE presents sections of sedimentary beds ranging from Cambrian upwards. The lowest bed contains the salt marl and rock-salt. The former is of unknown age,

t appears to be overlain by a purple sandstone, followed by shales ntaining Lower Cambrian fossils. These are again overlain by the iagnesian sandstone and salt pseudomorph zone of the Punjab. "he latter zone is followed by a boulder-bed and shales, and sandstones of Upper Carboniferous or Permian age, overlain by Lower Tertiary sandstone and Nummulitic limestone. In the eastern part of the Salt Range, the fossiliferous Productus limestone and ceratite beds are apparently absent, and there is a gap in the geological sequence between Lower Permian and Tertiary. Coal occurs in the Lower Tertiary beds at Dandot and Bāghānwāla[1].

The flora of the lower elevation is that of the Western Punjab; in the north-east the Outer Himālaya is approached; while the Salt Range has a vegetation of its own which combines rather different elements, from the north-west Indian frontier to the hills east of Simla. Trees are rare, except where planted or naturalized, but the *phūlāhi* (*Acacia modesta*) is abundant in the hills and ravine country. At Khewra the salt outcrops have a special flora, found in similar places in Shāhpur and across the Indus.

In the hills hyenas, jackals, and a few wolves and leopards are found The Salt Range is a favourite haunt of the *uriāl*: 'ravine deer' (Indian gazelle) are plentiful in the western hills. Sand-grouse, partridge (black and grey), *chikor*, and *sisī* are met with, and a great variety of wild-fowl haunt the Jhelum. Flocks of flamingo are found on the Kallar Kahār lake, and quail are not uncommon. Dhangrot on the Jhelum is a well-known place for mahseer fishing.

The climate is good. In the hills the heat is never extreme, though the adjoining submontane tract is one of the hottest in the Punjab. The rest of the District has the ordinary climate of the Western Punjab plains—excessive heat for half the year, with a long and bracing cold season, and the usual feverish seasons. In the winter a bitter north wind prevails in the Salt Range and the northern plateau, light snow on the hills is not uncommon, and once or twice in a generation a heavier fall extends to other parts of the District. Here and there guinea-worm, due to bad water, severely affects the population. The annual rainfall varies from 16 inches at Pind Dādan Khān to 24 inches at Jhelum. Of the fall at Jhelum, 6 inches are received in winter and 18 inches in the summer months. The local distribution is very variable. The tracts at the foot of the Salt Range often remain dry while heavy rain is falling in the hills, and rain in the east of the Jhelum *tahsīl* sometimes does not extend to the west.

The early annals of Jhelum present more points of interest than its

[1] See 'Geology of the Salt Range,' *Memoirs, Geological Survey of India*, vol. xiv; C. S. Middlemiss, 'Geology of the Salt Range,' *Records, Geological Survey of India*, vol. xxiv, pt. i.

records in modern times. Hindu tradition represents the Salt Range as the refuge of the Pāndavas during the period of their exile, and every salient point in its scenery is connected with some legend of the national heroes. The conflict between Alexander and Porus probably took place in or near the present District, though the exact spot at which the Macedonian king effected the passage of the Jhelum (or Hydaspes) has been hotly disputed. Sir Alexander Cunningham supposed that the crossing was at Jalālpur, which he identified with the city of Bucephala; and that the battle with Porus—a Greek corruption of the name Purusha—took place at Mong, on the Gujrāt side, close to the field of Chiliānwāla. A later writer (Mr. V. A. Smith) holds that the battle-field was ten miles north-east of Jhelum town. When the brief light cast upon the country by Arrian and Curtius has been withdrawn, we have little information with reference to its condition until the Muhammadan conquest. In the interval it must have passed through much the same vicissitudes as the neighbouring District of Shāhpur.

History.

The Janjūas and Jats, who, along with other tribes, now hold the Salt Range and the northern plateau respectively, appear to have been the earliest inhabitants. The former are doubtless pure Rājputs, while the Jats are perhaps their degenerate descendants. The Gakhars seem to represent an early wave of conquest from the west, and they still inhabit a large tract in the east of the District; while the Awāns, who now cluster in the western plain, are apparently later invaders. The Gakhars were the dominant race at the period of the first Muhammadan incursions; and they long continued to retain their independence, both in Jhelum itself and in the neighbouring District of Rāwalpindi. During the flourishing period of the Mughal dynasty, the Gakhar chieftains were among the most prosperous and loyal vassals of the house of Bābar. But after the collapse of the Delhi empire, Jhelum fell, like its neighbours, under the sway of the Sikhs. In 1765 Gujar Singh defeated the last independent Gakhar prince, and reduced the wild mountaineers of the Salt Range and the Murree Hills to subjection. His son succeeded to his dominions until 1810, when he fell before the irresistible power of Ranjīt Singh. Under the Lahore government the dominant classes of Jhelum suffered much from fiscal exactions; and the Janjūa, Gakhar, and Awān families gradually lost their landed estates, which passed into the hands of their Jat dependants. The feudal power declined and slowly died out, so that at the present time hardly any of the older chieftains survive, while their modern representatives hold no higher post than that of village headman.

In 1849 Jhelum passed with the rest of the Sikh territories into the power of the British. Ranjīt Singh, however, had so thoroughly

subjugated the wild mountain tribes who inhabited the District that little difficulty was experienced in reducing it to working order. In 1857 the 14th Native Infantry stationed at Jhelum town mutinied, and made a vigorous defence against a force sent from Rāwalpindi to disarm them, but decamped on the night following the action, the main body being subsequently arrested by the Kashmīr authorities, into whose territory they had escaped. No further disturbance took place. The subsequent history of Jhelum has been purely fiscal and administrative. On April 1, 1904, the *tahsīl* of Talagang was detached from the District and incorporated with the new District of Attock.

The country is still studded with interesting relics of antiquity, among which the most noticeable are the ruined temples of Katās, built about the eighth or ninth century A.D., and perhaps of Buddhist origin. Other religious ruins exist at Malot and Shivgangā; at Jhelum town an old mound has yielded utensils of Greek shape, and the remains of an old Kashmīrī temple; while the ancient forts of Rohtās, Girjhak, and Kusāk, standing on precipitous rocks in the Salt Range, are of deep interest for the military historian. Indeed, the position of Jhelum on the great north-western highway, by which so many conquerors have entered India, from the Greek to the Mughal, has necessarily made it a land of fortresses and guarded defiles, and has turned its people into hereditary warriors.

Population.

The population of the District at the last three enumerations was: (1881) 494,499, (1891) 514,090, and (1901) 501,424, dwelling in 4 towns and 888 villages. It decreased by 2·4 per cent. during the last decade. The District is divided into the three *tahsīls* of JHELUM, PIND DĀDAN KHĀN, and CHAKWĀL, the head-quarters of each being at the place from which it is named. The chief towns are the municipalities of JHELUM, the administrative head-quarters of the District, and PIND DĀDAN KHĀN. The following table shows the chief statistics of population in 1901:—

Tahsīl.	Area in square miles.	Number of Towns.	Number of Villages.	Population.	Population per square mile.	Percentage of variation in population between 1891 and 1901.	Number of persons able to read and write.
Jhelum	903	1	433	170,978	189·3	− 3·[illegible]	8,695
Chakwāl	1,004	2	248	160,316	159·7	− 2·8	6,785
Pind Dādan Khān	875	1	207	170,130	194·4	1·[illegible]	7,120
District total	2,813	4	888	501,424	178·3	− 9·4	22,606

NOTE.—The figures for the areas of *tahsīls* are taken from revenue returns. The total District area is that given in the *Census Report*.

Muhammadans number 443,360, or 89 per cent. of the total:

Hindus, 43,693; and Sikhs, 13,950. The language of the people is Western Punjābi.

The most numerous tribe is that of the Jats, who number 73,000, or 14 per cent. of the total population. Next to them numerically are the Rājputs (53,000) and Awāns (51,000). Other important agricultural castes are the Maliārs (23,000), Mughals (21,000), Gūjars (20,000), Gakhars (11,000), and Kahūtas (10,000), the latter almost entirely confined to this District. Saiyids number 13,000. Of the commercial and money-lending classes, the most numerous are the Khattrīs (31,000), Aroras returning only 9,000. Brāhmans number 5,000. Of the artisan classes, the Julāhās (weavers, 23,000), Mochīs (shoemakers and leather-workers, 19,000), Tarkhāns (carpenters, 14,000), Kumhārs (potters, 10,000), Lohārs (blacksmiths, 8,000), and Telis (oil-pressers, 7,000) are the most important. Kashmīrīs number 12,000. The chief menial classes are the Musallīs (sweepers, 18,000), Nais (barbers, 9,000), Māchhis (fishermen, bakers, and water-carriers, 6,000), and Dhobīs (washermen, 5,000). The Lilla Jats (1,000), an agricultural tribe found only in this District, also deserve mention. Of the whole population, 61 per cent. are supported by agriculture. The leading tribes—Gakhars, Awāns, Janjūas, and other Rājputs—enlist freely in the Indian army.

The American United Presbyterian Mission has a branch at Jhelum town, where work was started in 1873, and the Roman Catholic missionaries maintain a school at Dalwāl in the Salt Range. In 1901 the District contained 111 native Christians.

Agriculture.

The area irrigated by artificial means is a tenth of that cultivated in the Pind Dādan Khān *tahsīl*, but only one per cent. in the Chakwāl and Jhelum *tahsīls*. Cultivation thus depends on the local rainfall, eked out by the drainage from higher ground. The country is in parts seamed by torrent beds, and the soil varies from the infertile sand brought down by them to a rich loam and the stony soil of the hill-sides. In the greater part of the unirrigated land a spring crop is followed by an autumn crop; but the best land receiving drainage from higher ground is generally reserved for the spring, and in the tract under the hills in Pind Dādan Khān the lands for the autumn and spring harvests are kept separate.

The District is chiefly held by communities of small peasant proprietors, large estates covering only about 103 square miles. The area for which details are available from the revenue records of 1903-4 is 2,767 square miles, as shown on the next page.

The chief crops of the spring harvest are wheat, barley, gram, and oilseeds, the areas under which in 1903-4 were 477, 26, 34, and 80 square miles respectively; and in the autumn harvest, *jowār*, *bājra*, and pulses, which covered 16, 207, and 28 square miles respectively.

Between the settlements of 1864 and 1881 the cultivated area increased by 41 per cent., while the area cultivated at the settlement of 1901 showed an increase of 13 per cent. on that of 1881. The new cultivation of the last twenty years is, however, greatly inferior to the old, and there is but little prospect of further extension. Loans for the construction of wells are extremely popular, and Rs. 25,700 was advanced under the Land Improvement Loans Act in the District as now constituted during the five years ending 1904.

Tahsīl.	Total.	Cultivated.	Irrigated.	Cultivable waste.	Forests.
Jhelum . .	888	329	4	46	133
Chakwāl . .	1,004	516	6	49	35
Pind Dādan Khān	875	329	35	84	172
Total	2,767	1,174	45	179	340

The Dhanni breed of horses found in the Dhan or plateau north of the Salt Range has long been held in high estimation, being mentioned in the *Ain-i-Akbarī*, while good horses are found all over the District. The Army Remount department maintains 4 horse and 11 donkey stallions, and the District board 2 horse stallions. The Dhanni breed of small cattle is also well-known. Camels are largely used for carrying burdens, but the breed is poor. Both the fat-tailed and ordinary sheep are kept, and the goats are of a fair quality.

Of the total area cultivated in 1903–4, 45 square miles, or 3·8 per cent., were classed as irrigated by wells and canals. In addition, 47 square miles, or 4 per cent. of the cultivated area, are subject to inundation from the Jhelum. The wells, which number 4,781, are chiefly found along the river and in the level portion of the Jhelum *tahsīl*; they are all worked by cattle with Persian wheels. Canal-irrigation is at present confined to two small cuts in the Pind Dādan Khān *tahsīl*, one Government, the other private, but it is proposed to absorb the former in a larger canal commanding about 50,000 acres. The cultivation from the hill streams is unimportant, though where it exists no land is so profitable. Much of the unirrigated land is embanked and catches the drainage from higher ground.

The District contains 260 square miles of 'reserved' and 97 of unclassed forest under the Forest department, besides 43 square miles of unclassed forest and waste land under the Deputy-Commissioner, and one mile of military reserved forests. These consist mainly of the scattered scrub of *phūlāhi*, wild olive, *ukhānh*, and leafless caper, which clothe the hills. Some of the forest lands are stretches of alluvial grazing-ground, known as *belās*, along the Jhelum. In 1904-5 the revenue from the forests under the Forest department was Rs. 82,000, and from those under the Deputy-Commissioner Rs. 9,000.

Salt is found in large quantities in the Salt Range. It is excavated at KHEWRA and NŪRPUR, but outcrops are found in many places; and, in addition to the employés of the Khewra mines, a large preventive staff has to be maintained to prevent salt from being mined. Coal occurs in many places in the Salt Range. It is mined at Dandot by the North-Western Railway, and by a private firm at Bāghānwāla. Gypsum occurs in the marl beds above the salt strata of the Salt Range. Stone for road-making or railway ballast is plentiful, and good sandstone and limestone for building are frequently met with. Clay for pottery is also found. Fragments of copper and earthy iron hematites occur, but are quite unimportant. Sulphuret of lead or galena is found in small nodules in two or three localities. Quartz crystals are found in the gypsum of the Salt Range. Gold is washed in the beds of the torrents which flow into the Sohān, but the out-turn is insignificant.

Trade and communications.

The District possesses no arts or manufactures of any importance. Boat-building is carried on at Jhelum and at Pind Dādan Khān, and brass vessels and silk *lungis* are made at the latter town. Water-mills are frequently used for grinding corn.

Jhelum town is an important timber dépôt, being the winter headquarters of a Kashmīr Forest officer who supervises the collection of the timber floated down the river. There is a large export of timber by both rail and river and of salt from Khewra, but otherwise the trade of the District is unimportant. Brass and copper ware is exported from Pind Dādan Khān. Stone is also exported, and in good seasons there is a considerable export of agricultural produce. The chief imports are piece-goods and iron. Jhelum town and Pind Dādan Khān are the centres of trade, and a considerable boat traffic starts from the latter place down the river. The completion of the railway system, however, has already ruined the trade of Pind Dādan Khān, and is fast reducing Jhelum town to the position of a local dépôt.

The main line of the North-Western Railway traverses the east of the District, passing through Jhelum town, while the Sind-Sāgar branch runs through the south of the Pind Dādan Khān *tahsīl* with a branch to Khewra, whence a light railway brings down coal from Dandot. A branch from the main line to Chakwāl has been suggested, but has not been surveyed. Owing to the rugged nature of the country, the roads are not good. The only road used for wheeled traffic is the grand trunk road, which traverses the District by the side of the main line of rail; elsewhere pack animals are used. The only other route on which there is much traffic is that leading from Pind Dādan Khān by Khewra to Chakwāl. The Jhelum is navigable to about 10 miles above Jhelum town. It is crossed by a railway

bridge with a track for wheeled traffic at Jhelum, by another with a footway only in the Pind Dādan Khān *tahsīl*, and by fourteen minor ferries.

Famine.

The District suffered from the great *chālīsa* famine of 1783, and there was famine in 1813 and 1834. Locusts did a great deal of damage in 1848. In 1860–1, though the scarcity in other parts of the Province caused prices to rise, the crops here did not fail to any serious extent. In 1896–7 there was considerable distress, and test works were started, but were not largely attended. The worst famine since annexation was that of 1899–1900. It was, however, more a fodder than a grain famine; and though there was acute distress and test works were opened, it was not considered necessary to turn them into famine works. The greatest daily number relieved in any week was 3,955, and the total expenditure was Rs. 39,000.

Administration.

The District is divided into the three *tahsīls* of JHELUM, PIND DĀDAN KHĀN, and CHAKWĀL, each under a *tahsīldār* and a *naib-tahsīldār*. The Deputy-Commissioner is aided by three Assistant or Extra-Assistant Commissioners, of whom one is in charge of the Pind Dādan Khān subdivision and another of the District treasury.

The Deputy-Commissioner as District Magistrate is responsible for criminal justice. Civil judicial work is under a District Judge, and both officers are subordinate to the Divisional and Sessions Judge of the Jhelum Civil Division. There are three Munsifs, one at head-quarters and one in each *tahsīl*. The predominant form of crime is cattle-theft, while murders are also frequent.

The Sikh demand for land revenue cannot be shown with any accuracy. They took what they could get, but their average receipts during the last four years of their rule would seem to have been 7 lakhs. After the second Sikh War, when Jhelum passed into British possession, a summary settlement was made, yielding slightly less than the Sikh assessment. In 1852 a second summary settlement was undertaken, to correct the more obvious inequalities of the first. On the whole, both of these worked well, though some proprietors refused to pay the revenue fixed, and surrendered their proprietary rights. The first regular settlement, made in 1855–64, assumed half the net 'assets' as the share of Government, and fixed the demand at 6¼ lakhs. The next settlement (1874–81) raised the revenue by 18 per cent.; but this was easily paid, until a succession of bad harvests made large suspensions and some remissions necessary. In the present settlement (1895–1901) a further increase of 26 per cent. has been taken, but it is recognized that frequent suspensions will be needed. The average assessment on 'dry' land is Rs. 1-3 (maximum Rs. 2, minimum

6 annas), and on 'wet' land Rs. 3-2 (maximum Rs. 5, minimum Rs. 1-4). The demand on account of land revenue and cesses in 1903-4 for the District as now constituted was 8·8 lakhs. The average size of a proprietary holding is 18 acres.

The collections of land revenue alone and of total revenue are shown below, in thousands of rupees:—

	1880-1.	1890-1.	1900-1.	1903-4.
Land revenue . .	7,88	6,50	4,19	9,89
Total revenue . .	9,70	8,50	7,47	13,47

NOTE.—These figures are for the District as constituted before the separation of the Talagang *tahsīl* in 1904.

The District contains two municipalities, JHELUM and PIND DĀDAN KHĀN, and one 'notified area,' CHAKWĀL. Outside these, local affairs are managed by the District board, the income of which is mainly derived from a local rate, and amounted in 1903-4 to Rs. 93,000. The expenditure was Rs. 88,000, the principal item being education.

The regular police force consists of 450 of all ranks, including 8 cantonment and 81 municipal police, and the Superintendent usually has 4 inspectors under him. Village watchmen number 615. There are 14 police stations and 2 road-posts. The District jail at headquarters has accommodation for 295 prisoners.

The District stands sixth among the twenty-eight Districts of the Province in respect of the literacy of its population. In 1901 the proportion of literate persons was 4·5 per cent. (8·5 males and 0·4 females). The number of pupils under instruction was 3,964 in 1880-1, 12,026 in 1890-1, 12,386 in 1900-1, and 14,869 in 1903-4[1]. In 1904-5 the number of pupils in the District as now constituted was 12,144. In the same year the District contained 9 secondary and 95 primary (public) schools, and 3 advanced and 212 elementary (private) schools, with 454 girls in the public and 392 in the private schools. There are two Anglo-vernacular high schools, at Jhelum town and Pind Dādan Khān. The total expenditure on education in 1904-5 was Rs. 54,000.

Besides the civil hospital at Jhelum town, the District contains four outlying dispensaries. In 1904 a total of 76,560 out-patients and 1,451 in-patients were treated, and 2,859 operations were performed. The expenditure was Rs. 15,000, District funds contributing Rs. 6,000 and municipal funds Rs. 9,000. The American Presbyterian Mission also maintains a hospital at Jhelum.

The number of successful vaccinations in 1903-4 was 14,498, repre-

[1] All these figures apply to the District as constituted before the separation of the Talagang *tahsīl* in 1904.

senting 28·9 per 1,000 of the population. The Vaccination Act has been extended to the towns of Jhelum and Pind Dādan Khān.

[W. S. Talbot, *District Gazetteer* (in press); *Settlement Report* (1902); and *General Code of Tribal Custom in the Jhelum District* (1901).]

Jhelum Tahsīl (*Jehlam*).—Eastern *tahsīl* of Jhelum District, Punjab, lying between 32° 39′ and 33° 15′ N. and 73° 9′ and 73° 48′ E., with an area of 888 square miles. It is bounded on the east and south-east by the Jhelum river, which divides it from Kashmīr and Gujrāt District. The population in 1901 was 170,978, compared with 177,046 in 1891. The head-quarters are at the town of JHELUM (population, 14,951). It also contains 433 villages. The land revenue and cesses in 1903–4 amounted to 2·7 lakhs. The *tahsīl* is traversed from south-west to north-east by two spurs of the Salt Range, the more easterly of which culminates in the peak of TILLA. Between this and the Jhelum river is an almost level alluvial plain of great fertility, while between the two spurs the country is seamed with ravines. The fort of ROHTĀS is of historical interest.

Jhelum Town (*Jehlam*).—Head-quarters of the District and *tahsīl* of Jhelum, Punjab, situated in 32° 56′ N. and 73° 47′ E., on the right bank of the Jhelum river and on the North-Western Railway; distant by rail 1,367 miles from Calcutta, 1,403 from Bombay, and 849 from Karāchi. Population (1901), 14,951. The present town is of modern origin, the old town, which may have been the Bucephala of Alexander, having been on the left or opposite bank of the river. Under Sikh rule the place was quite unimportant, being mainly occupied by a settlement of boatmen, and at the time of annexation contained about 500 houses. It was then chosen as the site of a cantonment, and as the head-quarters of the civil administration. For some years it was the seat of the Commissioner of the Division, but in 1859 his head-quarters were transferred to Rāwalpindi. Under British rule Jhelum has steadily advanced in prosperity; and it is the entrepôt for most of the trade of the District, though, since the completion of the Sind-Sāgar branch of the North-Western Railway, the salt trade no longer passes through it. It is an important timber dépôt, the timber from the Kashmīr forests which is floated down the river being collected here. A good deal of boat-building is carried on. The cantonment, which is 3 miles from the civil station, contains the church and post office. The normal strength of the garrison is one Native cavalry and four Native infantry regiments. The municipality was founded in 1867. During the ten years ending 1902–3 the receipts averaged Rs. 32,100, and the expenditure Rs. 31,900. Receipts and expenditure from cantonment funds in the same period averaged Rs. 5,900 and Rs. 6,100, respectively. The income of the municipality in 1903–4 was Rs. 34,200, chiefly from

octroi; and the expenditure was Rs. 41,000. The town possesses two Anglo-vernacular schools, a municipal high school, and a middle school maintained by the American Presbyterian Mission. Besides the civil hospital, the mission also maintains a hospital.

Jhelum (*Jehlam*).—River in Kashmīr and the Punjab, being the most westerly of the five rivers from which the Punjab derives its name. It was known to the Muhammadan historians as the Bihat, Wihat, or Bihatab, corruptions of its Sanskrit name *Vitastā* (which Alexander's historians graecized into *Hydaspes*, but Ptolemy more correctly as *Bidaspes*), while its modern Kashmīrī name is *Veth*. It may be said to have its source in a noble spring of deep-blue water, which issues from the bottom of a high scarp of a mountain spur. The spring is known as Vernāg; and at Khānabal, 15 miles north, its waters join the streams of Adpat, Bring, and Sandran, and form the starting-point of navigation. The river is navigable without a single lock from Khānabal to Bāramūla, 102 miles. In its course to the Wular Lake, which may be regarded as a delta of the river, the fall is 165 feet in the first 30 miles and 55 feet in the next 24 miles. From the Wular Lake to Bāramūla the fall is very slight.

The Jhelum river has many tributaries. On its right bank it receives the Liddar or Lambodri, which comes down from the everlasting snows overhanging the head of the Liddar valley, and from the mountain lake of Tarsar. Below Srīnagar at Shādipur—the place of the marriage of the two rivers—the Sind river joins the Jhelum; and beyond the Wular Lake the Pohru stream, which drains the Lolāb valley, merges in the great river. On the left bank the chief tributaries are the Vishav, the Rembiara, the Ramshi, the Dudgangā, the Suknāg, and the Ferozepura. The Dudgangā joins the Jhelum at the lower end of Srīnagar city.

Below Bāramūla (5,000 feet) the placid Jhelum leaves the fertile banks of the valley, and rushes headlong down a deep gorge between lofty mountains of the Kazināg range on the north and an extension of the Pīr Panjāl on the south to Kohāla, 2,000 feet. At Muzaffarābād the Kishangangā river joins the Jhelum on its right bank, while a few miles lower down, and on the same side, the Kunhār river, which drains the Hazāra country, adds no inconsiderable volume of water. Between Khānabal and Bāramūla there are many bridges, but between Bāramūla and Domel, where the Kishangangā river joins the Jhelum, the bridges are scarce and primitive. Much of the internal commerce of Kashmīr depends on the Jhelum. An account of the various descriptions of boats used is given in the article on SRĪNAGAR.

Below its junction with the Kishangangā the Jhelum forms the boundary between the Kashmīr State and the British Districts of Hazāra and Rāwalpindi, flowing in a narrow rocky bed, shut in by mountains

on either side. Numerous rapids here render navigation impossible, though large quantities of timber are floated down from Kashmīr. A handsome suspension bridge at Kohāla, in Rāwalpindi District, connects Kashmīr with British territory. Below Dangalli, 40 miles east of Rāwalpindi, the Jhelum becomes navigable. Passing into Jhelum District, it skirts the outlying spurs of the Salt Range, receiving the waters of the Kahan, and finally debouches upon the plains a little above the town of Jhelum, about 250 miles from its source. Below the town, inundation of the lowlands begins to be possible, and sandy islands stud the wide bed of the stream. The Bunhā, in the rains a roaring torrent which sometimes spreads over a mile of country, joins the Jhelum at Dārāpur. After a south-westerly course of more than 100 miles, during which the river divides the District of Jhelum from Gujrāt and Shāhpur, it enters the latter District entirely, and trends thenceforth more directly southward. The width in this portion of its course averages 800 yards in flood, dwindling during the winter months to less than half that size. Sudden freshes occur after heavy rains, and cause frequent inundations over the lowlands, greatly increasing the productive power of the soil. The Jhelum next enters the District of Jhang, where it preserves the same general characteristics, but with a wider valley, bounded by the high uplands known as the Bār. It finally joins the Chenāb at Trimmu, in 31° 11′ N. and 72° 12′ E., 10 miles to the south of Maghiāna, after a total course of not less than 450 miles, of which about 200 lie within British territory. The current in the plains has an average rate of 4 miles per hour. The wedge of land between the Jhelum and the Chenāb is known as the Chaj Doāb; while the tract stretching westward to the Indus bears the name of the Sind Sāgar Doāb.

The principal towns upon the Jhelum are Kashmīr or Srīnagar, Jhelum, Pind Dādan Khān, Miāni, Bhera, and Khushāb. According to General Cunningham, the point where Alexander crossed the Hydaspes may be identified with Jalālpur in Jhelum District; while nearly opposite, on the Gujrāt bank, stands the modern battle-field of Chiliānwāla. Other writers hold that the passage was effected near Jhelum town. A bridge of boats crosses the river at Khushāb. The permanent railway bridge of the North-Western Railway also crosses it at the town of Jhelum, and the Sind-Sāgar line at Haranpur. The LOWER JHELUM CANAL takes off at Mong Rasūl in Gujrāt District.

Jhelum Canal, Lower.—A perennial irrigation work in the Punjab now approaching completion. It takes off from the left bank of the Jhelum river, and will eventually supply perennial irrigation to the whole of the country lying between the Jhelum and the Chenāb, west of a line joining the town of Miāni on the Jhelum with Pindi

Bhattiān on the Chenāb. The head of the canal is near the village of Mong Rasūl in Gujrāt District. The river is dammed by a weir 4,100 feet long, and a regulator across the head of the canal takes the form of a bridge of eight spans of 24½ feet each. The main line has a bed-width of 140 feet, and will have when running full a depth of 7·5 feet, and a discharge of 3,800 cubic feet per second, or twice that of the Thames at Teddington. The Shāhpur branch will take off at about the twenty-eighth mile of the main line. This branch has been designed to take up the irrigation now performed in Shāhpur District by the existing Imperial, Provincial, and privately-owned inundation canals. After a course of 39 miles, in which it gradually approaches the centre of the highlands of the Doāb, the canal bifurcates into two main branches, watering the northern and southern portions of the Doāb respectively. The total length of the main line and main branches is about 167 miles, and about 960 miles of distributing channels will be constructed. The canal will protect an area of 2,400 square miles, and is expected to irrigate annually about 1,200 square miles. Of the 2,400 square miles protected, about 850 are crown waste, which it is intended to turn into an immense horse-breeding colony for the supply of remounts to the Indian Army. For this purpose the greater portion has been leased out to colonists on the condition of their keeping an approved brood mare, and other areas have been reserved for public and private breeding establishments and horse runs. The work of colonization is under an officer of the Indian Civil Service, who has his head-quarters at Sargodha in Shāhpur District. The land has been divided into squares of nearly 28 acres each, and one brood mare has to be maintained for every 2½ squares. A railway has been constructed from Malakwāl on the Sind-Sāgar line to Shorkot on the Lyallpur-Khānewāl line, affording facilities for the immigration of colonists and the export of their produce.

Elaborate precautions have been taken to prevent waterlogging of the soil by over-irrigation. The depth at which spring-water is found below the surface of the ground has been carefully observed over the whole of the commanded area, and the country has been divided into three zones according to those depths. Where the spring-level is 40 feet or more below the surface, 50 per cent. of the gross area commanded may be irrigated; where the depth lies between 25 and 40 feet, 40 per cent. of the area will be irrigated; and where the water is nearer to the surface than 25 feet, only 25 per cent. will be allowed perennial irrigation, and powers have been reserved to reduce these supplies if they should be found to be in excess of requirements. On the Shāhpur branch 50 per cent. of the area will be irrigated.

The canal was opened on October 30, 1901; and irrigation is now well advanced, except on the Shāhpur branch, the construction of

which has only just been commenced. It is estimated that this canal will cost when finished 187·5 lakhs, and will give a return of 15·8 per cent. on the capital spent upon it, and that ten years after completion the net revenue will exceed the interest charges by 192 lakhs.

Jhelum Colony. —Colony on the Jhelum Canal, in the District and *tahsīl* of Shāhpur, Punjab. The total area to be irrigated from the Jhelum Canal amounts to 2,392 square miles, lying partly in Jhang and partly in Shāhpur District. Of this, 750 square miles of waste land in the Bār or upland of the southern part of Shāhpur District belong to Government; and upon it colonists are being settled in villages, on the same terms as the colonists in the CHENĀB COLONY, but the majority of grants have been made on the condition that a suitable mare is maintained for breeding purposes. Up to the end of 1904 about 231 square miles had been allotted to grantees. A large area has also been allotted for Imperial horse and mule runs and for regimental stud farms. The head-quarters of the colony are at SARGODHA, the head-quarters of the new Sargodha *tahsīl*, which is fast rising into an important town. It is connected by the new Jech Doāb branch of the North-Western Railway with Malakwāl on the Sind-Sāgar line, and with Shāhpur by a new metalled road. The railway is also being extended to Shorkot in Jhang District. Wells, roads, and markets are being built, and a complete system of feeder-roads is under construction.

Jhenida Subdivision.—North-western subdivision of Jessore District, Bengal, lying between 23° 22′ and 23° 47′ N. and 88° 57′ and 89° 23′ E., with an area of 475 square miles. The population in 1901 was 304,899, compared with 311,973 in 1891. It contains one town, KOTCHĀNDPUR (population, 9,065), and 861 villages. The head-quarters are at JHENIDA. The subdivision is a flat, alluvial plain, the surface of which has been raised by the inundations of the Ganges distributary system till it is now beyond the reach of ordinary floods, and no longer receives the deposits of silt which formerly enriched it. It contains the most unhealthy portions of the District. The population has consequently receded, and the density is now 642 persons to the square mile. The principal marts are at Jhenida and Kotchāndpur.

Jhenida Village.—Head-quarters of the subdivision of the same name in Jessore District, Bengal, situated in 23° 33′ N. and 89° 11′ E., on the Nabagangā river, 28 miles north of Jessore town. Population (1901), 798. There is a large bazar, with a trade in sugar, rice, and pepper. Communication was formerly carried on chiefly by means of the river, but this has now to a great extent silted up, and is navigable only below the town and for three months in the year. Jhenida is connected by road with Chuādānga station on the Eastern Bengal

State Railway. It contains the usual public offices; the sub-jail has accommodation for 11 prisoners.

Jher.—Petty State in MAHĪ KĀNTHA, Bombay.

Jherriā.—Coal-field in Mānbhūm District, Bengal. *See* MĀNBHŪM.

Jhingergācha.—Village in the head-quarters subdivision of Jessore District, Bengal, situated in 23° 6′ N. and 89° 8′ E., on the Kabadak river. Population (1901), 736. Jhingergācha is a station on the Eastern Bengal State Railway, and steamers ply between it and Kapilmuni in Khulnā District.

Jhinjhāna.—Town in the Kairāna *tahsīl* of Muzaffarnagar District, United Provinces, situated in 29° 31′ N. and 77° 13′ E., on the left bank of the Kathā, 30 miles from Muzaffarnagar town. Population (1901), 5,094. The town is the home of a family of Shaikhs who have resided here from an early date. It contains a *dargāh* of a Muhammadan saint built in 1495 and several monuments of the Shaikhs, the chief being a mosque and tomb built in 1623, decorated with coloured tiles. Jhinjhāna is administered under Act XX of 1856, with an income of about Rs. 1,700. It was formerly very dirty; and although the streets have recently been paved, it is still unhealthy.

Jhinjhūvāda.—Petty State in KĀTHIĀWĀR, Bombay.

Jhiri.—River between Manipur State and Cāchār District, Eastern Bengal and Assam. *See* JIRI.

Jhūnjhunu.—Head-quarters of the *tahsīl* of the same name and of the Shekhāwāti *nizāmat* in the State of Jaipur, Rājputāna, situated in 28° 8′ N. and 75° 23′ E., about 90 miles north-by-north-west of Jaipur city. Population (1901), 12,279. The place was the head-quarters of the Shekhāwati Brigade, a force maintained by the Darbār from 1836 to 1842 to preserve the peace, and now represented by the 13th Rājputs (the Shekhāwati Regiment). At the eastern end of the town is a suburb still called Forsterganj after the officer who raised and commanded the brigade. To the west is a hill 1,684 feet above sea-level and visible for miles round; it is said to have been seen with the naked eye from a distance of 95 miles. The town contains the mausoleum of Kamar-ud-dīn Shāh, the patron saint of the Kaimkhānis; a Jain temple said to be 1,000 years old; a combined post and telegraph office; 10 schools; and a hospital with accommodation for 4 in-patients.

Jhūsi.—Town in the Phūlpur *tahsīl* of Allahābād District, United Provinces, situated in 25° 26′ N. and 81° 54′ E., on the Ganges, opposite its junction with the Jumna. Population (1901), 3,342. Jhūsi has been identified with the Pratisthān or Kesī of the Purānic histories, which was the residence of Purūravas, first king of the Lunar dynasty and son of the moon. It was at one time called Harbongpur after the Rājā Harbong, of whose vagaries and misrule many fables are told.

In the time of Akbar the town was known as Hādiābās. It has recently been suggested that Jhūsī was the Kia-shi-pu-lo visited by Hiuen Tsiang. Two great mounds, once the site of forts, are the only visible remains; but gold coins of the Gupta kings, and a copperplate of Trilochana Pāla, dated in A.D. 1027, have been discovered here[1]. Jhūsī is administered under Act XX of 1856, with an income of about Rs. 500. There is a small school with 30 pupils.

Jiāganj.—Village in the Lālbāgh subdivision of Murshidābād District, Bengal, situated in 24° 15′ N. and 88° 16′ E., on the left bank of the Bhāgīrathi, 3 miles north of Murshidābād city, and opposite Azīmganj station on the East Indian Railway. Population (1901), 8,734. Though it has somewhat declined in importance, Jiāganj is still a large dépôt where rice, jute, silk, sugar, and a small quantity of cotton are collected for export. A jute-press is at work here. Jiāganj, which is included within the Azīmganj municipality, is connected with Azīmganj by a ferry, and during the rainy season a steamer plies between it and Dhuliān. It contains some large houses, the property of Jain merchants, many of whom dwell here, though the main colony lives in Azīmganj.

Jignī.—A petty *sanad* State in Central India, under the Bundelkhand Agency, with an area of about 22 square miles. Population (1901), 3,838. It is surrounded by portions of the Hamīrpur and Jhānsi Districts of the United Provinces. The holders of the *jāgīr* are Bundelā Rājputs, the founder being Rao Padam Singh, a son of the famous Chhatarsāl, who acquired in 1730 the *parganas* of Rāsin and Badaus (now in Hamīrpur District). The *jāgīr*, originally a large one, was much reduced during the Marāthā invasion, Lachhman Singh managing to obtain only a grant of the two *parganas* of Rāth and Panwārī from the invaders. When the British supremacy was established, Prithwī Singh, Lachhman's son, was in possession of fourteen villages, but in consequence of his contumacy they were attached. In 1810 the six villages which constitute the present holding were restored to him under a *sanad*. The present *jāgīrdār* is Rao Bhānu Pratāp Singh, a cousin of the Mahārājā of Charkhārī, who succeeded by adoption in 1892. Number of villages, 6: cultivated area, 9 square miles; revenue, Rs. 13,000. Jignī, the chief town, is situated in 25° 45′ N. and 79° 25′ E., on the right bank of the Dhasān river, at the confluence of that stream and the Betwā. Population (1901), 1,770.

Jīnd State.—One of the Phūlkiān States, Punjab. The State has a total area of 1,332[2] square miles, and comprises three distinct tracts.

[1] *Indian Antiquary*, vol. xviii, p. 34.

[2] These figures do not agree with the area given in Table III of the article on the PUNJAB, and in the population table on p. 170 of this article, which is the area as returned in 1901, the year of the latest Census. They are taken from later returns.

corresponding to its three *tahsīls* of Sangrūr, Jīnd, and Dādri. The first, in which lies Sangrūr, the present capital of the State, is interspersed among the territories of the other Phūlkiān States, Patiāla and Nābha; the Jīnd *tahsīl*, lying to the south-east of Sangrūr, is almost entirely surrounded by the British Districts of Karnāl and Rohtak; while on the south of it, and separated from it by Rohtak District, lies the *tahsīl* of Dādri. Sangrūr lies in the great natural tract known as the Jangal; Jīnd is in the Bāngar and includes a part of KURUKSHETRA, the sacred land of the Hindus; and Dādri lies partly in the Bāgar, the desert on the Rājputāna border, and partly in Hariāna.

Physical aspects.

No great river traverses the State; but the Choya torrent passes through Sangrūr, and a still smaller stream, the Jhambūwāli, and the Ghaggar river also enter that *tahsīl*. In Dādri a few villages are fertilized by the Dohān, a seasonal torrent which rises in Jaipur State and loses itself in Rohtak District. With the exception of some low hills, outliers of the Arāvalli system, in the Dādri *tahsīl*, the State consists of level plains whose monotony is broken only in Sangrūr by shifting sandhills.

The flora corresponds (as regards the older parts of the State) with that of Karnāl and Rohtak; in the Dādri *tahsīl* it is identical with the adjoining tracts of North-Eastern Rājputāna. The fauna is much the same as in the Patiāla plains.

Owing to the scattered character of the State, the climate is not uniform. The Jīnd *tahsīl* is moist and unhealthy; Dādri is dry, sandy, and healthy; and Sangrūr possesses the same characteristics in a less degree. The rainfall is heaviest in Sangrūr, where it averages 17 inches a year, while Jīnd receives about 12 inches. Dādri has the lowest rainfall, 10 inches, and is the tract most subject to drought, the two other *tahsīls* being now protected against famine by canals.

History.

The history of Jīnd as a separate State dates from 1763, in which year the confederate Sikhs captured Sirhind town from the governor to whom Ahmad Shāh Durrāni had entrusted it, and partitioned the old Mughal province. The Rājā of Jīnd is descended from Sukh Chain, a grandson of Phūl, the ancestor of all the Phūlkiān families, who had previously been a mere rural notable. On Sukh Chain's death in 1751 Bālānwāli, which he had founded, fell to Alam Singh his eldest son, Badrukhān to his second son Gajpat Singh, and Dyālpura to Bulāki. On Alam Singh's death in 1754 Bālānwāli also passed to Gajpat Singh, who was the most adventurous of the three brothers, and in 1755 conquered the imperial *parganas* of Jīnd and Safīdon and overran Pānīpat and Karnāl, but was not strong enough to hold them. In 1766 Gajpat Singh made Jīnd town his capital. Nevertheless he remained a vassal of the Delhi empire and continued to pay tribute, obtaining in return in 1772 an

imperial *farmān* which gave him the title of Rājā. In 1774, in consequence of a quarrel with the Rājā of Nābha, he attacked Amloh, Bhādson, and Sangrūr, which were in the Nābha territories; and though he was compelled by the Rājā of Patiāla to relinquish the first two places, he succeeded in retaining the last, which has ever since remained part of the Jīnd State. In the next year, the Delhi government made an attempt to recover Jīnd; but the Phūlkiān chiefs combined to resist the attack, which was repulsed. Gajpat Singh built a fort at Jīnd in 1775, and soon after this joined the Rājā of Patiāla in an invasion of Rohtak; but the Mughal power was strong enough to compel them to give up most of their conquests, though Jīnd retained Panjgirain. Again, in 1870, the allies marched on Meerut, but were defeated, and Gajpat Singh was taken prisoner by the Muhammadan general, his release being secured only by payment of a heavy ransom. He died in 1789, and was succeeded by two sons—Bhāg Singh, who inherited the title of Rājā with the territories of Jīnd and Safīdon; and Bhūp Singh, who obtained Badrukhān.

Rājā Bhāg Singh shrewdly held aloof from the combination against the British; and when Sindhia's power in Northern India was ultimately broken, Lord Lake rewarded him by confirming his title in the Gohāna estates which had previously been farmed to him by the Marāthās. He afterwards accompanied Lord Lake as far as the Beās in his pursuit of Jaswant Rao Holkar, and was sent as an envoy to Mahārājā Ranjīt Singh, who was the son of his sister Rāj Kaur, to dissuade him from assisting the fugitive prince. The mission was successful. Holkar was compelled to leave the Punjab, and Bhāg Singh received as his reward the *pargana* of Bawāna to the south-west of Pānīpat. The history of Ranjīt Singh's interference in the Phūlkiān States has been given in the article on PATIĀLA. From Ranjīt Singh, Rājā Bhāg Singh received territory now included in Ludhiāna District, comprising Jandālā, Raikot, Bassiān, and Jagraon. He died in 1819 after ruling thirty-six years, and was succeeded by his son Fateh Singh, who died in 1822. Troublous times followed, and Sangat Singh, who succeeded his father Fateh Singh, was obliged for a period to desert his capital. He died childless in 1834; and the question of the succession was finally settled in 1837, when Sarūp Singh of Bāzīdpur, a second cousin of the deceased Rājā, was recognized as chief of all the territory that had been held by his great-grandfather, Gajpat Singh, through whom he derived his title. The territory to which he thus succeeded consisted of Jīnd proper and nine other *parganas*, containing 322 villages, with a revenue of Rs. 2,36,000, while the acquisitions of the chiefs subsequent to Gajpat Singh, comprising territory yielding Rs. 1,82,000, were resumed by the British Government.

Before the outbreak of the first Sikh War the Rājā of Jīnd was in

close alliance with Patiāla against Rājā Deoindar Singh of Nābha. His attitude to the British Government, however, was anything but friendly in 1845, until a timely fine recalled him to his allegiance. In the first Sikh War his conduct was exemplary, and he furnished both troops and supplies, receiving in reward a grant of land of the annual value of Rs. 3,000, while the fine of the previous year was remitted. Another grant, yielding Rs. 1,000, was shortly afterwards added, in consideration of the abolition of the State transit dues. In 1847 the Rājā received a *sanad* by which the British Government engaged never to demand from him or his successors tribute or revenue, or commutation in lieu of troops; the Rājā on his part promised to aid the British with all his resources in case of war, to maintain the military roads, and to suppress *satī*, slave-dealing, and infanticide in his territories. When the second Sikh War broke out, Rājā Sarūp Singh offered to lead his troops in person to join the army at Lahore. In the crisis of 1857 he rendered most valuable assistance. He occupied the cantonment of Karnāl with 800 men, and held the ferry over the Jumna at Bāghpat, 20 miles north of Delhi, thus enabling the Meerut force to join Sir H. Barnard's column. He was present at the battle of Alīpur, but at the end of June was compelled to pay a flying visit to Jīnd, as the rebels of Hānsi, Rohtak, and Hissar had induced some of his villages to revolt. He returned to Delhi on September 9, and his contingent took a prominent part in the final assault on the city. He was further active throughout in sending supplies to the besieging force, and in keeping open the lines of communication and preserving order in the districts adjoining his State. After the fall of Delhi he sent 200 men with General van Cortlandt to Hānsi, and 110 more with Colonel R. Lawrence to Jhajjar, while 250 remained to garrison Rohtak. These splendid services received a fitting reward in the grant of the Dādri territory, covering nearly 600 square miles, forfeited for disloyalty by the Nawāb of Bahādurgarh. This territory now yields a revenue of over 2 lakhs. He also received 13 villages, assessed at Rs. 1,38,000, in the Kulārān *pargana*, close to Sangrūr, where the Rājā now has his capital, and a house at Delhi, valued at Rs. 6,000. His salute was raised to 11 guns; and, like the other Phūlkiān chiefs, he received a *sanad* granting him the right of adoption in case of the failure of natural heirs, and legalizing the appointment of a successor by the two other Phūlkiān chiefs, in concert with the Political Agent, in the event of the Rājā dying without male issue and without having adopted a successor.

Rājā Sarūp Singh died in 1864. He was succeeded by his son, Raghubīr Singh, who was in every way worthy of his father. Immediately after his installation he was called upon to put down a serious insurrection in the newly-acquired territory of Dādri. The people

objected to the new revenue assessment, which had been based upon the British system, though the rates were much heavier than those prevailing in the neighbouring British Districts. Fifty villages broke out in open revolt, but Rājā Raghubīr Singh lost no time in hurrying to the scene of the disturbances with about 2,000 men of all arms. The village of Charki, where the ringleaders of the rebellion had entrenched themselves, was carried by assault, and within six weeks of the outbreak the country was again perfectly quiet. The Rājā rendered prompt assistance to the British Government on the occasion of the Kūka outbreak in 1872; and when the second Afghān War broke out in 1878, the British Government accepted his offer of a contingent, which rendered useful service on the line of communications. As a reward, the honorary title of Rājā-i-Rājgān was conferred on the Rājā of Jīnd in perpetuity. An offer of assistance in the Egyptian campaign of 1882 was declined, with a suitable recognition of the Rājā's loyalty. Rājā Raghubīr Singh was indefatigable in his efforts to promote the prosperity, material and otherwise, of his people. He rebuilt the town of Sangrūr, modelling it largely on Jaipur, and made many improvements at Jīnd, Dādri, and Safīdon. It is largely owing to his efforts that Jīnd is to-day the first of the Phūlkiān States as regards artistic manufactures. He died in 1887, leaving a grandson, Ranbīr Singh, to succeed him. Rājā Ranbīr Singh was only eight years old at his accession, and a Council of Regency was appointed to carry on the administration until he attained majority. Full powers were given him in November, 1899, in a *darbār* held at Sangrūr.

The southern portion of KURUKSHETRA lies within the boundaries of the State, but the antiquities of the tract have never been properly explored. There are several old buildings and tanks, especially in and around SAFĪDON, for which an antiquity is claimed coeval with the events of the Mahābhārata.

Population.

The State contains 7 towns and 439 villages, and its population at the last three enumerations was: (1881) 249,862, (1891) 284,560, and (1901) 282,003. The decrease of 1 per cent. during the last decade was due to famine, which caused considerable emigration from Dādri. It is divided into two *nizāmats* or administrative districts: SANGRŪR, which comprises the *tahsīl* of that name; and JĪND, divided into the two *tahsīls* of Jīnd and Dādri. Their head quarters are at Sangrūr and Jīnd respectively. The principal towns are SANGRŪR, the modern capital, JĪND, the former capital, SAFĪDON, DĀDRI, and KALIĀNA. The table on the next page shows the chief statistics of population in 1901.

Nearly three-fourths of the population are Hindus, only 10·6 per cent. being Sikhs, though Jīnd is one of the principal Sikh States in the Punjab. The remainder are Muhammadans (nearly 14 per

cent.), with a few Jains in the Dādri *tahsil*. The majority of the people speak Bāngru, or its kindred dialects of Bāgri and Ahīrwatī, Punjābi being spoken only in the Sangrūr *tahsīl*.

Tahsīl.	Area in square miles.	Number of		Population.	Population per square mile.	Percentage of variation in population between 1891 and 1901.	Number of persons able to read and write.
		Towns.	Villages.				
Sangrūr	242	2	95	64,681	267	+ 8.6	3,142
Jīnd	464	2	163	124,954	269	+ 0.9	2,679
Dādri	562	3	181	92,368	164	− 8.7	2,008
State total	1,268	7	439	282,003	222	− 0.9	7,829

NOTE.—The figures for the areas of *tahsīls* are taken from revenue returns. The total area of the State is that given in the *Census Report*.

More than 33 per cent. of the population are Jāts, the Sidhu tribe, to which the ruling family belongs, being strong in Sangrūr and the Sheorān in Dādri. Rājputs and Ahīrs also form important castes in Dādri. The latter are exclusively Hindus. About 66 per cent. of the population are dependent on agriculture. A branch of the Reformed Presbyterian Mission is established at Sangrūr; and 80 Christians, mostly members of the railway community at Jīnd, were enumerated in the State in 1901.

Agriculture.

Dādri *tahsīl* is almost devoid of irrigation, and its conditions therefore differ completely from those of Sangrūr and Jīnd. Of these, Sangrūr is now commanded by the Sirhind Canal, and its agricultural system has in consequence undergone great changes, being now superior to that of Jīnd. Formerly an arid tract with sparse cultivation, its virgin soil has been rendered cultivable by the canal. Jīnd is irrigated from the Hānsi branch of the older Western Jumna Canal, and its soil suffers both from excess of moisture and from exhaustion. Dādri is an arid, sandy tract, exposed to violent dust-storms in the hot season, and the sowing of either harvest depends entirely on the seasonal rains.

The State is mostly held by communities of small peasant proprietors, though large estates cover about 400 square miles. The following table gives the main statistics of cultivation in 1903–4, areas being in square miles:—

Tahsīl	Total.	Cultivated.	Irrigated.	Cultivable waste.
Sangrūr	252	203	71	35
Jīnd	489	386	77	38
Dādri	591	238	14	39
Total	1,332	827	162	112

In Sangrūr and Jīnd the principal harvest is the spring crop, in which wheat and barley and gram, mixed with mustard, are grown, cotton and sugar-cane (and in Sangrūr maize) being cultivated for the autumn harvest. In Dādri wheat is rarely sown except on lands irrigated from wells, and the main harvest is in the autumn, when millet is the staple crop. Pulses are sown with millet, which is also grown to some extent in Jīnd. Gram is the staple crop of the spring harvest.

In the Jīnd *tahsīl* rent is taken either in cash or by division of produce. Cash rents vary from Rs. 1–3–3 to Rs. 1–9–3 for unirrigated land, while for irrigated land Rs. 4–12–9 is paid on cotton and double that amount on sugar-cane. Where the less valuable irrigated crops are grown, rent is paid in kind, the landlord taking one fourth of the produce. In the Dādri *tahsīl* kind rents are very rare. From R. 0–12–9 to Rs. 3 per acre is paid for unirrigated land, and Rs. 4 to Rs. 5 for land watered from wells. In the Sangrūr *tahsīl* rent is taken by division of crops. The rates are the same as in the Jīnd *tahsīl*. The construction of railways has tended to equalize the prices of grain in different parts of the State.

Apart from the extension of canals, the State has since 1891 advanced Rs. 8,000 for the construction of wells for irrigation and drinking purposes, and nearly Rs. 16,000 more has been provided from village funds. There is a State bank in each *tahsīl*, by which advances are made at half the ordinary rates of interest. The cultivated area increased by 4·5 per cent. between 1881 and 1901, but there is little room for further extension.

Dādri, which lies close to Hariāna, is the main cattle-breeding tract, the animals resembling the famous Hariāna breed. Camels are also reared by the Rahbārīs in this *tahsīl*, and used both for ploughing and carrying, as well as for riding. A good type of milch buffalo is found in Jīnd. The State maintains three Reserves in which grazing is allowed on payment.

The State owns 7·6 per cent. of the Sirhind Canal. Of the total area cultivated in 1903–4, 162 square miles, or more than 13 per cent., were classed as irrigated. Of this area, 37 square miles were irrigated from wells, 121 from canals, and 4 from streams. There are 2,292 masonry wells in use, besides 289 unbricked wells, lever wells, and water-lifts. Wells are virtually confined to Sangrūr and Dādri, as the cost of making them is prohibitive in the Jīnd *tahsīl*. The bucket and rope are commonly used, but a few Persian wheels are found in one part of the State. In 1903–4, 27 square miles were irrigated from the Sirhind Canal and 4 from the Ghaggar river and other streams in Sangrūr, while in the Jīnd *tahsīl* the Western Jumna Canal irrigated 60 square miles. The Hānsi and Butāna branches of the Western Jumna Canal

were managed by the British Government prior to 1888. In that year, however, an agreement was made by which the State took over distributaries irrigating 60,000 acres on payment of Rs. 1,20,000, less the cost of maintenance, &c., giving a net amount of about Rs. 1,05,500 a year payable to Government. The State is also allowed to irrigate 10,000 acres free of water rate, if there is a sufficient supply of water in the canal. The Bhiwāni branch, still under British management, irrigates about 2,300 acres in this *tahsīl*, for which the State pays the water rates fixed for British villages, plus 50 per cent. in lieu of owner's rate.

The only forests are the three Reserves already mentioned. These are called *bīrs* and have an area of 2,623 acres. While yielding an income of over Rs. 2,000 in normal years, they also form valuable fodder reserves for the cattle in time of famine.

The State contains no mines or minerals, with the exception of stone and *kankar* quarries and saltpetre, the last of which yields a revenue of nearly Rs. 15,000. Stone is quarried in the Dādri *tahsīl*, but most of it is used locally.

Trade and communications.

The only industries of any importance are the manufacture of gold and silver ornaments, leathern and wood-work, cotton cloth, and rude pottery. The towns of Sangrūr and Dādri are noted for their leathern goods, shoes, harness, and well-gear; and in the former good furniture of English pattern is made In the Sangrūr *tahsīl* embroidery is done by women for local sale and some of it is exported. There is some turnery at Dādri. The only factory is a steam cotton-ginning and pressing factory at Jīnd town, which in 1903–4 gave employment to 120 persons.

Large quantities of grain are exported through Sangrūr, Jīnd, and Dādri. Other exports are cotton, *ghī*, and oilseeds, while the chief imports are refined sugar and cotton cloth.

The Ludhiāna-Dhūri-Jākhal Railway was opened in 1901, the State finding four-fifths of the capital for its construction. It connects Sangrūr, the capital, with Dhuri Junction on the Rājpura-Bhatinda branch of the North-Western Railway and with Jākhal Junction on the Southern Punjab Railway, and is managed by the North-Western Railway in return for 55 per cent. of the gross earnings. The Southern Punjab Railway has three stations in the Jīnd *tahsīl*, and the Rājputāna-Mālwā Railway two in Dādri. Sangrūr is also connected by metalled roads with Dhūri and Patiāla, and with Jīnd by a partially metalled road. The State contains 42 miles of metalled roads and 191 miles of unmetalled roads. The postal and telegraphic arrangements are similar to those in PATIĀLA.

In common with the rest of the Punjab, the State suffered from the

famines of 1783, 1803, 1812, 1824, and 1833. That of 1860–1 also affected the State, especially the Dādri *tahsīl*, and half a year's revenue was remitted, advances for the purchase of cattle and seed being also given. In 1869–70 a fodder famine caused great losses of cattle, and a fifth of the revenue was remitted in the Jīnd *tahsīl*, advances being also made in Dādri. In 1877–8 the scarcity was more severe and was met by loans from the State banks. In 1883–4 a fodder famine again caused great loss of cattle, and revenue was largely suspended. In 1896 famine reappeared, and Rs. 27,500 was allotted for relief works, 7,000 maunds of grain were distributed as advances for seed, and Rs. 3,000 spent in charitable relief; and though the scarcity was intensified in 1897, the losses were not severe. In 1899 the crops failed again before the people had had time to recover from the effects of the preceding famine. Two months after the opening of relief works in October, 1899, it was resolved to concentrate the famine-stricken people on the Ludhiāna Dhūri-Jākhal Railway. The highest daily average (1,260) was reached in March, 1900. Works were not closed until December, 1900, and the total expenditure on them exceeded Rs. 40,000. Poorhouses were also opened and relief given privately at a cost of nearly Rs. 23,000, excluding the expenditure on additional dispensaries and the relief of immigrants. On the conclusion of the famine, Rs. 1,58,000 was advanced to the people for the purchase of cattle and seed, bringing up the total expenditure incurred by the State to Rs. 2,27,000.

Famine.

The Agent to the Lieutenant-Governor of the Punjab for Jīnd is the Political Agent for the Phūlkiān States and Bahāwalpur, who resides at Patiāla. The administration of the State is divided between four departments. Foreign affairs and education are controlled by the foreign minister. The Dīwān controls finance, excise, and revenue; the Bakhshī Khāna under the commander-in-chief is responsible for the army and the police, and the Adālatī or minister of justice for civil and criminal justice. The heads of these departments sitting together form a State Council known as the *Sadr Alā*, to which each of the ministers individually is subordinate. The Council again is controlled by the Rājā. The accountant-general's office was established in 1899. For administrative purposes the State is divided into two *nizāmats* and three *tahsīls*. Each *tahsīl* is further subdivided into police circles, the Sangrūr *tahsīl* containing three, Jīnd and Dādri two each. Each *nizāmat* is administered by a *nāzim*, under whom is a *tahsīldār* in each *tahsīl*.

Administration.

In each *nizamat* the *nāzim* and *tahsīldārs* exercise judicial powers, and in 1899 a subdivisional magistrate was appointed in the Dādri *tahsīl*. The *nāzim* corresponds roughly to a District Magistrate, and from his decisions appeals lie to the *Sadr Adālat*, which is presided

over by the Adālatī. Further appeals lie to the *Sadr Alā*, which is subordinate to the *Ijlās-i-Khās*, or court of the Rājā. All these courts exercise both civil and criminal jurisdiction. The Indian Penal Code and Criminal Procedure Code are in force in the State, with certain modifications.

The principal feudatory is the Sardār of Badrukhān, the representative of the junior branch of the ruling family. The *jāgīr* is worth Rs. 8,843 per annum, and is subject to the usual incidents of lapse and commutation. The Rājā of Nābha is a member of this family.

In the time of Rājā Gajpat Singh the State consisted only of the four *parganas* of Jīnd, Safīdon. Sangrūr, and Bālānwāli, with a revenue of about 3 lakhs. Before the settlements made by Rājā Sarūp Singh, a fluctuating system of assessment was in vogue, including *batai*, *kankūt*, and cash rates fixed on the nature of crops. The settlements were made in different years for each *tahsīl*. Between 1857 and 1866 a summary settlement of the Sangrūr and Jīnd *tahsīls* was conducted, resulting in a total demand of 3·2 lakhs. Shortly after this a regular settlement of the whole State was made, which produced a fixed revenue of 5·9 lakhs. In both of these settlements the *batai* system was partly continued. Two regular settlements followed, when cash rates were introduced throughout. The assessment of the fourth settlement was 6·2 lakhs. Revenue rates on unirrigated land vary from a minimum of R. 0–4–1 in Dādri to a maximum of Rs. 1–12–10 in Sangrūr, and on irrigated land from a minimum of R. 0–6 1 in Dādri to a maximum of Rs. 2–5–9 in Sangrūr.

The collections of land revenue alone and of total revenue (including cesses) are shown below, in thousands of rupees :—

	1880–1.	1890–1.	1900–1.	1903–4.
Land revenue . . .	7,14	7,15	8,03	7,54
Total revenue . . .	10,71	12,67	14,93	16,04

Apart from land revenue, the principal sources of revenue, with the amounts derived from each in 1903–4, are as follows: canals (2·5 lakhs), railways (1·2 lakhs), and stamps (0·6 lakh). The principal heads of expenditure are army (2·7 lakhs), canals (1·2 lakhs), public works (0·9 lakh), police (0·5 lakh), and miscellaneous (8·8 lakhs).

The income derived from excise in 1903–4 was Rs. 29,000. Liquor is distilled on premises which belong to the State, under the supervision of State officials, and still-head duties are levied of Rs. 2–8–0 per proof gallon and Rs. 2 per gallon of 25° under proof. The arrangement regarding the import of Mālwā opium is similar to that which obtains in the case of Patiāla, but the quantity allowed to Jīnd at the lower rate never exceeds 19 chests. The duty paid on this opium is refunded

to the State, with the object of securing the co-operation of the officials in the suppression of smuggling. The import of opium from Dādri into British territory is prohibited. The contracts for the retail sale of opium, drugs, and liquor are auctioned, and wholesale licences are granted on payment of a fixed fee. The excise arrangements are under the control of a Superintendent, who is subordinate to the Dīwān.

The mint is controlled by the State treasurer, but, as in the case of Patiāla, coins are struck only on special occasions, and these can hardly be said to be current coinage. The Jīnd rupee bears an inscription similar to that on the Patiāla rupee, to the effect that it is struck under the authority of Ahmad Shāh Durrāni. (See article on PATIĀLA.) The value of the coin is about 12 annas. Gold coins are also struck.

The towns of SANGRŪR, JĪND, SAFĪDON, and DĀDRI have been constituted municipalities.

The expenditure on public works in 1903-4 was Rs. 90,854; and the principal buildings erected by the department since 1900 are the Ranbīr College, the Ranbīr Ganj, the Record Office, and the Female Hospital, all at Sangrūr.

The State army consists of a battalion of Imperial Service infantry, 600 strong, with all necessary transport; and a local force of 220 cavalry, 560 infantry, 80 artillery, and 16 serviceable guns.

The police force had in 1903-4 a total strength of 405 of all ranks, and the village watchmen numbered 523. The police force is controlled by an Inspector-General, under whom there is a Superintendent for each of the three *tahsīls*, and a deputy-inspector for each of the seven police stations. The principal jail is at Sangrūr. It has accommodation for 320 prisoners, and is managed by a *dārogа* under the supervision of the Adālati. The chief jail industries are printing, weaving, bookbinding, and the making of *daris* (cotton carpets), paper, webbing, and rope.

In 1901 the proportion of literate persons was 2·8 per cent. (5 males and 0·2 females). The number of pupils under instruction was 602 in 1890-1, 791 in 1900-1, and 730 in 1903-4. In the last year the State had 4 secondary and 7 primary and special (public) schools, and 15 elementary (private) schools, with 3 girls in the private schools. The eleven institutions classed as public were all managed by the Educational department of the State. The existing system dates from 1889, when the old State schools at Sangrūr, Jīnd, Dādri, and Safīdon were remodelled, so as to bring them into line with the regulations of the Punjab Educational department. In 1894 the school at Sangrūr was raised to the status of a high school, and in 1902 the Diamond Jubilee College was completed at that town. The expenditure of

the State on education was Rs. 9,300 in 1892-3 and Rs. 10,400 in 1903-4.

The State contains 3 hospitals and 6 dispensaries, with accommodation for 64 in-patients. In 1903-4 the number of cases treated was 29,129, of whom 166 were in-patients, and 867 operations were performed. The expenditure was Rs. 17,815. The medical department is in charge of the State Medical officer.

Vaccination, which is compulsory throughout the State, is carried out by a staff of four vaccinators under an inspector. In 1903-4 the number of vaccinations performed was 4,752, representing 16·9 per 1,000 of the population.

Revenue survey maps were prepared for each *tahsīl* at the first settlement. They were revised during the second and third settlements, and during the fourth settlement a fresh survey of Jīnd and Sangrūr was made and new maps were prepared. For the Jīnd *tahsīl*, a map on the 4-inch scale was made. The first trigonometrical survey was made between 1847 and 1849, and maps were published on the 1-inch and 2-inch scales. A 4-inch map of the Cis-Sutlej States was published in 1863, and a revised edition of it in 1897. The 1-inch maps prepared in 1847-9 were revised in 1886-92.

[H. A. Rose, *Phūlkiān States Gazetteer* (in the press); L. H. Griffin, *The Rājās of the Punjab* (second edition, 1873).]

Jīnd Nizāmat.—South-eastern *nizāmat* or administrative district of Jīnd State, Punjab, lying between 28° 24′ and 29° 28′ N. and 75° 55′ and 76° 48′ E., with an area of 1,080 square miles. It comprises the two *tahsīls* of JĪND and DĀDRI. The population in 1901 was 217,322, compared with 225,039 in 1891. The *nizāmat* contains five towns, JĪND, the head-quarters, SAFĪDON, DĀDRI, KALIĀNA, and Braund; and 344 villages. The land revenue and cesses in 1903-4 amounted to 4·7 lakhs.

Jīnd Tahsīl.—Northern *tahsīl* of the Jīnd State and *nizāmat*, Punjab, lying between 29° 2′ and 29° 28′ N. and 76° 15′ and 76° 48′ E., with an area of 489 square miles. It forms a compact triangle, almost entirely surrounded by the British Districts of Karnāl, Delhi, Rohtak, and Hissār, while on the north it is bounded by the Narwāna *tahsīl* of Patiāla. It lies entirely in the natural tract known as the Bāngar, and includes a part of the Nardak or KURUKSHETRA, the sacred land of the Hindus. The population in 1901 was 124,954, compared with 123,898 in 1891. The *tahsīl* contains two towns, JĪND (population, 8,047), the head-quarters, and SAFĪDON (4,832); and 163 villages. The land revenue and cesses in 1903-4 amounted to 2·3 lakhs.

Jīnd Town.—Head-quarters of the Jīnd *nizāmat* and *tahsīl*, Jīnd State, Punjab, situated in 29° 20′ N. and 76° 19′ E., on the Southern

Punjab Railway, 60 miles south-east of Sangrūr, the modern capital, and 25 miles north-west of Rohtak. Population (1901), 8,047. It was formerly the capital of the State to which it gave its name, and the Rājās of Jīnd are still installed here. It lies in the holy tract of Kurukshetra; and tradition ascribes its foundation to the Pāndavas, who built a temple here to Jainti Devī, the 'goddess of victory,' round which sprang up the town Jaintapuri, since corrupted into Jīnd. Of little importance in the Muhammadan period, it was seized by Gajpat Singh, the first Rājā of Jīnd, in 1755. Rahīm Dād Khān was sent by the Delhi government in 1775 to recover it, but was defeated and killed. His tomb is still to be seen at the Safīdon Gate, and trophies of the victory are preserved in the town. It contains many ancient temples, and several places of pilgrimage. The fort of Fatehgarh, part of which is now used as a jail, was built by Rājā Gajpat Singh. The municipality has an income of Rs. 7,210, chiefly from octroi; and there is a considerable local trade.

Jinjirām.—River of Assam, which rises in the Urpad *bīl*, Goālpāra District, and flows through the southern portion of that District till it falls into the Brahmaputra, south of Mānikarchar, after a course of 120 miles. The most important places on its banks are Lakhipur, South Salmāra, and Singimāri. Above Sālmāra the country is under water during the rains, and boats of 4 tons burden can proceed as far as Lakhipur. In the dry season they cannot get above Singimāri. The river serves as a trade route for the southern portion of Goālpāra and the Gāro Hills.

Jintūr.—Northern *tāluk* of Parbhani District, Hyderābād State, with an area of 952 square miles. Including *jāgīrs*, the population in 1901 was 87,797, compared with 123,546 in 1891, the decrease being due to the famine of 1900. The *taluk* contains 297 villages, of which 37 are *jāgīr*, and Jintūr (population, 3,688) is the head-quarters. The land revenue in 1901 was 3·2 lakhs. The *tāluk* lies between the rivers Pūrna (north) and Dudna (south). The soils are mainly alluvial and *regar*.

Jiral Kāmsoli.—Petty State in REWĀ KĀNTHA, Bombay.

Jirang.—Petty State in the Khāsi Hills, Eastern Bengal and Assam. The population in 1901 was 723, and the gross revenue in 1903–4 Rs. 2,245. The principal products are rice, millet, ginger, caoutchouc, and cotton.

Jiri.—River of Assam, which rises on the southern slopes of the Barail, and, after a southerly course of 75 miles, falls into the Barāk or Surmā. For nearly the whole of its length it forms the boundary between Cāchār District and the State of Manipur, and it is crossed at Jirighāt by a ferry, which is maintained for the use of travellers along the Silchar-Manipur road. The greater part of its course lies through

hilly country, and there is very little cultivated land in the vicinity. The only traffic brought down by the river consists of forest produce and tea from a garden situated at Jirighāt, about 5 miles above its confluence with the Barāk.

Jobat.—A guaranteed chiefship in Central India, under the Bhopāwar Agency, lying between 22° 21′ and 22° 30′ N. and 74° 28′ and 74° 50′ E., with an area of about 140 square miles. It is bounded on the north by the Jhābua State; on the south and west by Alī-Rājpur; and on the east by Gwalior. Jobat lies entirely in the hilly tract of the Vindhyas, and is intersected by a succession of short ranges and narrow valleys covered with thick jungle. The geological formations met with are of unusual interest. In the immediate neighbourhood of the town of Jobat, and covering a considerable area round it, is an outcrop of a peculiar jaspideous, ferruginous rock, while the greater part of the State is occupied by gneissose and schistose rocks. Along the northern border the Lametas are represented by the Nimār sandstone and Bāgh limestones, overlaid by trap. The annual rainfall averages about 30 inches.

There is some uncertainty as to the founder of this State; but the best-supported account relates that the territory passed to Kesar Deo, great-grandson of Anand Deo, the founder of Alī-Rājpur, in the fifteenth century. On the establishment of British supremacy, Rānā Sabal Singh was in possession, and was succeeded by Rānā Ranjīt Singh, who died in 1874. Ranjīt Singh in 1864 agreed to cede all land which might at any time be required for railways through his State. He was followed by Sarūp Singh, who died in 1897, and was succeeded by the present chief, Indrajīt Singh, who is still a minor, and is being educated at the Daly College at Indore. The title of Rānā is borne by the rulers of Jobat.

Population has been: (1881) 9,387, (1891) 15,047, and (1901) 9,443, giving a density of 67 persons per square mile. The decrease of 37 per cent. during the last decade is due mainly to the famine of 1899–1900. Animists (chiefly Bhīls and Bhilālas) number 8,131, or 86 per cent. of the total.

The general fertility of the soil is low, and the Bhils, who form the greater part of the population, are indifferent agriculturists. The total area is thus distributed: cultivated, 32 square miles, of which only 62 acres can be irrigated; cultivable but not under cultivation, 30 square miles; waste and forest land, 78 square miles. Of the cropped area, *urd* occupies 17 square miles, or 53 per cent., maize, 10 square miles; and *jowār*, 7 square miles.

The forest area, which covers almost the whole of the uncultivable portion of the State, has since 1902 been in charge of the Agency Forest officer. Asbestos has been found in some quantity, but the

quality is poor, and an attempt to work it proved a failure. Trade generally has increased, especially the export of grain, which is carried to Dohad on the Godhra-Ujjain section of the Bombay, Baroda, and Central India Railway by a fair-weather road, 40 miles in length. A British post office has been opened at Ghora village; the nearest telegraph office is at Bāgh in the Amjhera district of Gwalior, 15 miles distant.

The State is divided into five *thānas*—Jobat, Guda, Hirāpur, Thaplī, and Juārī—under two *thānadārs*, who are the revenue collectors. Owing to the chief's minority, the State is at present administered by the Political Agent, through a Superintendent, all matters of importance being dealt with by him. The total revenue is Rs. 21,000, of which Rs. 8,300 is derived from land, Rs. 2,700 from forests, and Rs. 4,000 from excise. The general administration, including the chief's establishment, costs Rs. 15,000 a year. The incidence of the land revenue demand is 9 annas per acre of cultivated land and 2 annas per acre of total area. The jail is at Jobat, and a vernacular school is maintained at Ghora. In 1901 only one per cent. of the population (almost all males) could read and write.

Jobat village, containing the residence of the chief, is situated in 22° 27′ N. and 74° 37′ E. Population (1901), 208. It is reached from the Dohad or Meghnagar stations on the Ratlām-Godhra section of the Bombay, Baroda, and Central India Railway, the stations being 40 miles distant by fair-weather road from the village. The administrative head quarters, however, are at Ghora, 2 miles south of Jobat. Population (1901), 1,154. The State is often called Ghora-Jobat by natives, on account of its two capitals.

Jodhpur State (also called Mārwār).—The largest State in Rājputāna, having an area of 34,963 square miles, or more than one-fourth of the total area of the Agency. It lies between 24° 37′ and 27° 42′ N. and 70° 6′ and 75° 22′ E. It is bounded on the north by Bīkaner, on the north-west by Jaisalmer; on the west by Sind; on the south-west by the Rann of Cutch; on the south by Pālanpur and Sirohi; on the south-east by Udaipur; on the east by Ajmer Merwāra and Kishangarh; and on the north-east by Jaipur. The country, as its name Mārwār (= 'region of death') implies, is sterile, sandy, and inhospitable. There are some comparatively fertile lands in the north-east, east, and south-east in the neighbourhood of the Arāvalli Hills; but, generally speaking, it is a dreary waste covered with sandhills, rising sometimes to a height of 300 or 400 feet, and the desolation becomes more absolute and marked as one proceeds westwards. The northern and north-western portion is a mere desert, known as the *thal*, in which, it has been said, there are more spears than spear-grass heads,

Physical aspects.

and blades of steel grow better than blades of corn. The country here resembles an undulating sea of sand; an occasional oasis is met with, but water is exceedingly scarce and often 200 to 300 feet below the surface. The ARĀVALLI HILLS form the entire eastern boundary of the State, the highest peak within Jodhpur limits being in the south-east (3,607 feet above the sea). Several small offshoots of the Arāvallis lie in the south, notably the Sūnda hills (Jaswantpura), where a height of 3,252 feet is attained, the Chappan-kā-pahār near Siwāna (3,199 feet), and the Roja hills at Jālor (2,408 feet). Scattered over the State are numerous isolated hills, varying in height from 1,000 to 2,000 feet. The only important river is the LŪNI. Its chief tributaries are the Līlri, the Raipur Lūni, the Guhiya, the Bāndi, the Sukri, and the Jawai on the left bank, and the Jojri on the right. The principal lake is the famous salt lake at SĀMBHAR. Two other depressions of the same kind exist at Dīdwāna and Pachbhadra. There are a few *jhīls* or marshes, notably one near Bhatki in the south-west, which covers an area of 40 or 50 square miles in the rainy season, and the bed of which, when dry, yields good crops of wheat and gram.

A large part of the State is covered by sand-dunes of the transverse type, that is, with their longer axes at right angles to the prevailing wind. Isolated hills of solid rock are scattered over the plain. The oldest rocks found are schists of the Arāvalli system, and upon them rests unconformably a great series of ancient subaerial rhyolites with subordinate bands of conglomerate, the Mallāni series. These cover a large area in the west and extend to the capital. Coarse-grained granites of two varieties, one containing no mica and the other both hornblende and mica, are associated with the rhyolites. Near the capital, sandstones of Vindhyan age rest unconformably upon the rhyolites. Some beds of conglomerate, showing traces of glacial action, have been found at Pokaran and are referred to the Tālcher period. Sandstones and conglomerates with traces of fossil leaves occur at Bārmer, and are probably of Jurassic age. The famous marble quarries of Makrāna are situated in Jodhpur territory, the marble being found among the crystalline Arāvalli schists.

The eastern and some of the southern districts are well wooded with natural forests, the most important indigenous timber-tree being the *babūl* (*Acacia arabica*), the leaves and pods of which are used as fodder in the hot season, while the bark is a valuable tanning and dyeing agent. Among other trees may be mentioned the *mahuā* (*Bassia latifolia*), valuable for its timber and flowers; the *anwal* (*Cassia auriculata*), the bark of which is largely used in tanning; the *dhāk* or *palās* (*Butea frondosa*), the *dhao* (*Anogeissus pendula*), the *gūlar* (*Ficus glomerata*), the *siris* (*Albizzia Lebbek*), and the *khair* (*Acacia Catechu*). Throughout the plains the *kheira* (*Prosopis spicigera*), the *rohīra* (*Tecoma*

undulata), and the *nīm* (*Melia Azadirachta*) are common, and the tamarind and the *bar* (*Ficus bengalensis*) are fairly so. The *pīpal* (*Ficus religiosa*), a sacred tree, is found in almost every village. The principal fruit trees are the pomegranate (*Punica Granatum*), the Jodhpur variety of which is celebrated for its delicate flavour, and the *nīmbu* or lime-tree. In the desert the chief trees are two species of the *ber* (*Zizyphus Jujuba* and *Z. nummularia*), which flourish even in years of scanty rainfall, and furnish the main fodder and fruit-supply of this part of the country; and the *khejra*, which is not less important, as its leaves and shoots provide the inhabitants with vegetables (besides being eaten by camels, goats, and cattle), its pods are consumed as fruits, its wood is used for roofs, carts, and agricultural implements or as fuel, and its fresh bark is, in years of famine, stripped off and ground with grain to give the meagre meal a more substantial bulk.

The fauna is varied. Lions are now extinct, the last four having been shot near Jaswantpura about 1872, and the wild ass (*Equus hemionus*) is seldom, if ever, seen. Tiger, *sāmbar* (*Cervus unicolor*), and black bears are found in the Arāvallis and the Jaswantpura and Jālor hills, but in yearly decreasing numbers. Wild hog are fairly numerous in the same localities, but are scarcer than they used to be in the low hills adjacent to the capital. Leopards and hyenas are generally plentiful, and *nīlgai* (*Boselaphus tragocamelus*) are found in some of the northern and eastern districts. Indian gazelle abound in the plains, as also do antelope, save in the actual desert; but the *chital* (*Cervus axis*) is seen only on the slopes of the Arāvallis in the south-east. Wolves are numerous in the west, and wild dogs are occasionally met with in the forests. In addition to the usual small game, there are several species of sand grouse (including the imperial), and two of bustard, namely, the great Indian (*Eupodotis edwardsi*) and the *houbārā* (*Houbara macqueeni*).

The climate is dry, even in the monsoon period, and characterized by extreme variations of temperature during the cold season. The hot months are fairly healthy, but the heat is intense: scorching winds prevail with great violence in April, May, and June, and sand-storms are of frequent occurrence. The climate is often pleasant towards the end of July and in August and September; but a second hot season is not uncommon in October and the first half of November. In the cold season (November 15 to about March 15) the mean daily range is sometimes as much as 30°, and malarial and other fevers prevail. An observatory was opened at Jodhpur city in October, 1896, and the average daily mean temperature for the nine years ending 1905 has been nearly 81° (varying from 62·7° in January to 94·2° in May). The mean daily range is about 25° (16·6° in August and 30·5° in November). The highest temperature recorded since the observatory

was established has been 121° on June 10, 1897, and the lowest 28° on January 29, 1905.

The country is situated outside the regular course of both the south-west and north-east monsoons, and the rainfall is consequently scanty and irregular. Moreover, even in ordinary years, it varies considerably in different districts, and is so erratic and fitful that it is a common saying among the village folk that 'sometimes only one horn of the cow lies within the rainy zone and the other without.' The annual rainfall for the whole State averages about 13 inches, nearly all received in July, August, and September. The fall varies from less than 7 inches at Sheo in the west to about 13 inches at the capital, and nearly 18½ inches at Jaswantpura (in the south) and Bāli in the south-east. The heaviest fall recorded in any one year was over 55½ inches at Sānchor (in the south-west) in 1893, whereas in 1899 two of the western districts (Sheo and Sānkra) received but 0·14 inch each.

History.

The Mahārājā of Jodhpur is the head of the Rāthor clan of Rājputs, and claims descent from Rāma, the deified king of AJODHYĀ. The original name of the clan was Rāshtra ('protector'), and subsequently eulogistic suffixes and prefixes were attached, such as Rāshtrakūta (*kūta* = 'highest') or Mahārāshtra (*mahā* = 'great'), &c. The clan is mentioned in some of Asoka's edicts as rulers of the Deccan, but their earliest known king is Abhimanyu of the fifth or sixth century A.D., from which time onward their history is increasingly clear. For nearly four centuries preceding A.D. 973 the Rāshtrakūtas gave nineteen kings to the Deccan: but in the year last mentioned they were driven out by the Chālukyas (Solanki Rājputs) and sought shelter in Kanauj, where a branch of their family is said to have formed a settlement early in the ninth century. Here, after living in comparative obscurity for about twenty-five years, they dispossessed their protecting kinsmen and founded a new dynasty known by the name of Gaharwār. There were seven kings of this dynasty (though the first two are said to have never actually ruled over Kanauj), and the last was Jai Chand, who in 1194 was defeated by Muhammad Ghorī, and, while attempting to escape, was drowned in the Ganges. The nearer kinsmen of Jai Chand, unwilling to submit to the conqueror, sought in the scrub and desert of Rājputāna a second line of defence against the advancing wave of Muhammadan conquest. Siāhjī, the grandson (or, according to some, the nephew) of Jai Chand, with about 200 followers, 'the wreck of his vassalage,' accomplished the pilgrimage to Dwārka, and is next found conquering Kher (in MALLĀNI) and the neighbouring tract from the Gohel Rājputs, and planting the standard of the Rāthors amidst the sandhills of the Lūni in 1212. About the same time a community of Brāhmans held the city and extensive lands of Pāli, and, being greatly harassed by Mers,

Bhīls, and Mīnās, invoked the aid of Siāhjī in dispersing them. This he readily accomplished; and, when subsequently invited to settle in the place as its protector, celebrated the next Holī festival by putting to death the leading men, and in this way adding the district to his conquests. The foundation of the State now called Jodhpur thus dates from about 1212; but this was not the first appearance of the Rāthors in Mārwār, for, as the article on BĀLI shows, five of this clan ruled at Hathūndi in the south-east in the tenth century. In Siāhjī's time, however, the greater part of the country was held by Parihār, Gohel, Chauhān, or Paramāra Rājputs. The nine immediate successors of Siāhjī were engaged in perpetual broils with the people among whom they had settled, and in 1381 the tenth, Rao Chonda, accomplished what they had been unable to do. He took MANDOR from the Parihār chief, and made his possession secure by marrying the latter's daughter. This place was the Rāthor capital for the next seventy-eight years, and formed a convenient base for adventures farther afield, which resulted in the annexation of Nāgaur and other places before the Rao's death about 1409. His son and successor, Ran Mal, who was a brother-in-law of Rānā Lākhā, appears to have spent most of his time at Chitor, where he interfered in Mewār politics and was assassinated in an attempt to usurp the throne of the infant Rānā Kūmbha. The next chief was Rao Jodha, who, after annexing Sojat in 1455, laid the foundation of Jodhpur city in 1459 and transferred thither the seat of government. He had fourteen (or, according to some authorities, seventeen) sons, of whom the eldest, Sātal, succeeded him about 1488, but was killed three years later in a battle with the Subahdār of Ajmer, while the sixth was Bīka, the founder of the Bikaner State. Sātal was followed by his brother Sūja, remembered as the 'cavalier prince,' who in 1516 met his death in a fight with the Pathāns at the Pīpār fair while rescuing 140 Rāthor maidens who were being carried off. Rao Ganga (1516-32) sent his clansmen to fight under the standard of Mewār against the Mughal emperor, Bābar, and on the fatal field of Khānua (1527) his grandson Rai Mal and several other Rāthors of note were slain.

Rao Māldeo (1532-69) was styled by Firishta 'the most powerful prince in Hindustān'; he conquered and annexed numerous districts and strongholds, and, in his time, Mārwār undoubtedly reached its zenith of power, territory, and independence. When the emperor Humāyūn was driven from the throne by Sher Shāh, he sought in vain the protection of Māldeo; but the latter derived no advantage from this inhospitality, for Sher Shāh in 1544 led an army of 80,000 men against him. In the engagements that ensued the Afghān was very nearly beaten, and his position was becoming daily more critical, till at last he had recourse to a stratagem which secured for him so narrow

and barren a victory that he was forced to declare that he had 'nearly lost the empire of India for a handful of *bājra*'—an allusion to the poverty of the soil of Mārwār as unfitted to produce richer grain. Subsequently Akbar invaded the country and, after an obstinate and sanguinary defence, captured the forts of Merta and Nāgaur. To appease him, Māldeo sent his second son to him with gifts; but the emperor was so dissatisfied with the disdainful bearing of the desert chief, who refused personally to attend his court, that he besieged Jodhpur, forced the Rao to pay homage in the person of his eldest son, Udai Singh, and even presented to the Bīkaner chief, a scion of the Jodhpur house, a formal grant for the State of Jodhpur together with the leadership of the clan. Rao Māldeo died shortly afterwards; and then commenced a civil strife between his two sons, Udai Singh and Chandra Sen, ending in favour of the latter, who, though the younger, was the choice of both his father and the nobles. He, however, ruled for only a few years, and was succeeded (about 1581) by his brother, who, by giving his sister, Jodh Bai, in marriage to Akbar, and his daughter Mān Bai to the prince Salīm (Jahāngīr), recovered all the former possessions of his house, except Ajmer, and obtained several rich districts in Mālwā and the title of Rājā. The next two chiefs, Sūr Singh (1595–1620) and Gaj Singh (1620–38), served with great distinction in several battles in Gujarāt and the Deccan. The brilliant exploits of the former gained for him the title of Sawai Rājā, while the latter, besides being viceroy of the Deccan, was styled Dalbhanjan (or 'destroyer of the army') and Dalthambhan (or 'leader of the host').

Jaswant Singh (1638–78) was the first ruler of Mārwār to receive the title of Mahārājā. His career was a remarkable one. In 1658 he was appointed viceroy of Mālwā, and received the command of the army dispatched against Aurangzeb and Murād, who were then in rebellion against their father. Being over-confident of victory and anxious to triumph over two princes in one day, he delayed his attack until they had joined forces, and in the end suffered a severe defeat at Fatehābād near Ujjain. Aurangzeb subsequently sent assurances of pardon to Jaswant Singh, and summoned him to join the army then being collected against Shujā. The summons was obeyed, but as soon as the battle commenced he wheeled about, cut to pieces Aurangzeb's rear-guard, plundered his camp, and marched with the spoils to Jodhpur. Later on he served as viceroy of Gujarāt and the Deccan, and finally in 1678, in order to get rid of him, Aurangzeb appointed him to lead an army against the Afghāns. He died in the same year at Jamrūd, and was succeeded by his posthumous son, Ajīt Singh, during whose infancy Aurangzeb invaded Mārwār, sacked Jodhpur and all the large towns, destroyed the temples and commanded the conversion of the Rāthor race to Islām. This cruel policy cemented into one bond of union all

who cherished either patriotism or religion, and in the wars that ensued the emperor gained little of either honour or advantage. On Aurangzeb's death in 1707 Ajīt Singh proceeded to Jodhpur, slaughtered or dispersed the imperial garrison, and recovered his capital. In the following year he became a party to the triple alliance with Udaipur and Jaipur to throw off the Muhammadan yoke. One of the conditions of this alliance was that the chiefs of Jodhpur and Jaipur should regain the privilege of marrying with the Udaipur family, which they had forfeited by contracting matrimonial alliances with the Mughal emperors, on the understanding that the offspring of Udaipur princesses should succeed to the State in preference to all other children. The allies fought a successful battle at Sāmbhar in 1709, and a year or so later forced Bahādur Shah to make peace.

When the Saiyid brothers—'the Warwicks of the East'—were in power, they called upon Ajīt Singh to mark his subservience to the Delhi court in the customary manner by sending a contingent headed by his heir to serve. This he declined to do, so his capital was invested, his eldest son (Abhai Singh) was taken to Delhi as a hostage, and he was compelled, among other things, to give his daughter in marriage to Farrukhsiyar and himself repair to the imperial court. For a few years Ajīt Singh was mixed up in all the intrigues that occurred; but on the murder of Farrukhsiyar in 1719, he refused his sanction to the nefarious schemes of the Saiyids, and in 1720 returned to his capital, leaving Abhai Singh behind. In 1721 Ajīt Singh seized Ajmer, where he coined money in his own name, but had to surrender the place to Muhammad Shāh two years later. In the meantime, Abhai Singh had been persuaded that the only mode of arresting the ruin of the Jodhpur State and of hastening his own elevation was the murder of his father; and in 1724 he induced his brother, Bakht Singh, to commit this foul crime. Abhai Singh ruled for about twenty-six years, and in 1731 rendered great service to Muhammad Shāh by capturing Ahmadābād and suppressing the rebellion of Sarbuland Khān.

On his death in 1750 his son Rām Singh succeeded, but was soon ousted by his uncle, Bakht Singh, the parricide, and forced to flee to Ujjain, where he found Jai Appa Sindhia and concerted measures for the invasion of his country. In the meantime Bakht Singh had met his death, by means, it is said, of a poisoned robe given him by his aunt or niece, the wife of the Jaipur chief; and his son, Bijai Singh, was ruling at Jodhpur. The Marāthās assisted Ram Singh to gain a victory over his cousin at Merta about 1756; but they shortly afterwards abandoned him, and wrested from Bijai Singh the fort and district of Ajmer and the promise of a fixed triennial tribute. After this, Mārwār enjoyed several years of peace, until the rapid strides made by the Marāthās towards universal rapine, if not conquest, compelled the principal Rājput States

(Mewār, Jodhpur, and Jaipur) once more to form a union for the defence of their political existence. In the battle of Tonga (1787) Sindhia was routed, and compelled to abandon not only the field but all his conquests (including Ajmer) for a time. He soon returned, however; and in 1790 his army under De Boigne defeated the Rājputs in the murderous engagements at Pātan (in June) and Merta (in September). In the result, he imposed on Jodhpur a fine of 60 lakhs, and recovered Ajmer, which was thus lost for ever to the Rāthors. Bijai Singh died about 1793, and was succeeded by his grandson, Bhīm Singh, who ruled for ten years.

At the commencement of the Marāthā War in 1803 Mān Singh was chief of Jodhpur, and negotiated first with the British and subsequently with Holkar. Troubles then came quickly upon Jodhpur, owing to internal disputes regarding the succession of Dhonkal Singh, a supposed posthumous son of Bhīm Singh, and a disastrous war with Jaipur for the hand of the daughter of the Mahārānā of Udaipur. The freebooter Amīr Khān espoused first the cause of Jaipur and then that of Jodhpur, terrified Mān Singh into abdication and pretended insanity, assumed the management of the State itself for two years, and ended by plundering the treasury and leaving the country with its resources completely exhausted. On Amīr Khān's withdrawal in 1817, Chhatar Singh, the only son of Mān Singh, assumed the regency, and with him the British Government commenced negotiations at the outbreak of the Pindāri War. A treaty was concluded in January, 1818, by which the State was taken under protection and agreed (1) to pay an annual tribute of Rs. 1,08,000 (reduced in 1847 to Rs. 98,000, in consideration of the cession of the fort and district of Umarkot), and (2) to furnish, when required, a contingent of 1,500 horse (an obligation converted in 1835 to an annual payment of Rs. 1,15,000—see the article on ERINPURA). Chhatar Singh died shortly after the conclusion of the treaty, whereupon his father, Mān Singh, threw off the mask of insanity and resumed the administration. Within a few months he put to death or imprisoned most of the nobles who, during his assumed imbecility, had shown any unfriendly feeling towards him; and many of the others fled from his tyranny and appealed for aid to the British, with the result that in 1824 the Mahārājā was obliged to restore the confiscated estates of some of them. In 1827 the nobles again rebelled, and putting the pretender, Dhonkal Singh, at their head, prepared to invade Jodhpur from Jaipur territory. Lastly, in 1839, the misgovernment of Mān Singh and the consequent disaffection and insurrection in the State reached such a pitch that the British Government was compelled to interfere. A force was marched to Jodhpur, of which it held military occupation for five months, when Mān Singh executed an engagement to ensure future good government. He died in 1843, leaving no son; and by the choice

of his widows and the nobles and officials of the State, confirmed by Government, Takht Singh, chief of Ahmadnagar, became Mahārājā of Jodhpur, the claims revived by Dhonkal Singh being set aside. The Mahārājā did good service during the Mutiny, but the affairs of Mārwār fell into the utmost confusion owing to his misrule, and the Government of India had to interfere in 1868. In 1870 he leased to Government the Jodhpur share of the Sāmbhar Lake, together with the salt marts of Nāwa and Gūdha. Takht Singh died in 1873, when he was succeeded by his eldest son, Jaswant Singh. The new administration was distinguished by the vigour and success with which dacoities and crimes of violence (formerly very numerous) were suppressed, by pushing on the construction of railways and irrigation works, improving the customs tariff, introducing a regular revenue settlement, &c. In fact, in every department a wise and progressive policy was pursued. No chief could have better upheld the character of his house for unswerving loyalty to Government, and the two fine regiments of Imperial Service cavalry raised by him are among the evidences of this honourable feeling. He was created a G.C.S.I. in 1875, and subsequently his salute (ordinarily 17 guns) was raised first to 19, and next to 21 guns. He died in 1895, leaving a strong and sound administration to his only son, Sardār Singh, who was born in 1880, and is the present Mahārājā. He was invested with powers in 1898, the administration during his minority having been carried on by his uncle, Mahārāj Prātap Singh (now the Mahārājā of Idar), assisted by a Council. The chief events of His Highness's rule have been: the employment of a regiment of his Imperial Service Lancers on the north-west frontier in 1897–8 and in China in 1900–1; the extension of the railway to the Sind border and thence to Hyderābād; the great famine of 1899–1900; the conversion of the local into British currency in 1900; and his visit to Europe in 1901. Mahārājā Sardār Singh was a member of the Imperial Cadet Corps from January, 1902, to August, 1903.

The State is rich in antiquarian remains. The most interesting are described in the articles on Bāli, Bhīnmāl, Dīdwāna, Jālor, Mandor, Nādol, Nāgaur, Pāli, Rānapur, and Sādri.

Population.

Excluding the 21 villages situated in the British District of Merwāra, which, under an arrangement made in 1885, are administered by the Government of India, but over which the Jodhpur Darbār still retains other rights, there were, in 1901, 4,057 towns and villages in the State, the town of Sāmbhar being under the joint jurisdiction of the Jodhpur and Jaipur Darbārs. The population at each of the three enumerations was: (1881) 1,757,681, (1891) 2,528,178, and (1901) 1,935,565. The territory in 1901 was divided into 24 districts or *hukūmats* (since reduced to 23), and contained one city, Jodhpur (population, 79,109), the capital of the State and a munici-

pality, and 26 towns. The principal towns are PHALODI (population, 13,924) and NĀGAUR (13,377) in the north, PĀLI (12,673) and SOJAT (11,107) in the east, and KUCHĀWAN (10,749) in the north-east. The following table gives the chief statistics of population in 1901 :—

Hukūmat.	Area in square miles.	Number of Towns.	Number of Villages.	Population.	Percentage of variation in population between 1891 and 1901.	Number of persons able to read and write.
Jodhpur	2,896	2	370	235,461	− 28·1	17,372
Bāli } Godwār	837	1	160	96,194	} − 22·8	3,777
Desuri } Godwār	706	1	160	67,764		3,686
Bilāra	792	2	88	57,794	− 32	4,196
Dīdwāna	1,136	1	113	44,642	− 17·8	2,285
Jaitāran	959	2	116	67,733	− 22·7	2,683
Jālor	1,552	1	252	140,880	− 17·3	9,887
Jaswantpura	1,360	1	198	83,370	− 25·3	5,179
Mallāni	5,750	1	464	172,330	− 22·1	5,018
Mārot	498	...	109	54,873	− 3·4	1,602
Merta	1,618	1	370	142,854	− 30·6	8,040
Nāgaur	2,608	4	420	167,759	− 33·5	9,096
Nāwa*	302	2	12	24,960	− 20·9	1,930
Pachbhadra	854	2	105	39,427	− 25·5	2,118
Pāli	1,024	1	80	43,889	− 42·9	2,787
Parbatsar	840	...	165	87,127	− 17	2,418
Phalodi	2,624	2	71	59,619	− 17	5,130
Sāmbhar	160	1	6	7,438	− 10·5	571
Sānchor	1,776	...	231	70,401	− 26·6	1,668
Sānkra	1,279	1	71	25,960	+ 157·7	1,009
Sheo	2,004	...	65	24,405	− 19·4	459
Shergarh	1,456	...	80	56,921	− 19·7	2,035
Siwāna	760	...	112	53,931	− 16·7	2,210
Sojat	1,172	1	212	109,833	− 22·5	9,685
State total	34,963	27	4,030	1,935,565	− 23·4	104,841

* Amalgamated with Sāmbhar in 1902-3.

The large decrease in the population since 1891 was due to a series of bad seasons culminating in the great famine of 1899–1900, and also to heavy mortality from cholera and fever at the end of the decade. The enormous increase in the population of the Sānkra district is ascribed mainly to the immigration of Bhāti Rājputs and others from Jaisalmer, while the small decreases in the Mārot and Sāmbhar districts (both in the north-east) seem to show that the famine was less severely felt there. Of the total population, 1,606,046, or nearly 83 per cent., are Hindus; 149,419, or nearly 8 per cent., Musalmāns; 137,393, or 7 per cent., Jains; and 42,235, or over 2 per cent., Animists. Among the Hindus there are some Dādūpanthis (a sect described in the article on NARAINA in the Jaipur State, which is their head-quarters), but their number was not recorded at the last Census. In addition to the two subdivisions of the sect mentioned in that article, there is a third which

is said to be peculiar to Jodhpur and is called Gharbāri. Its members marry and are consequently not recognized in Jaipur as true Dādūpanthis. Another sect of Hindus deserving of notice is that of the Bishnois, who number over 37,000, and derive their name from their creed of twenty-nine (*bis + nau*) articles. The Bishnois are all Jāts by tribe, and are strict vegetarians, teetotallers, and non-smokers; they bury their dead sometimes in a sitting posture and almost always at the threshold of the house or in the adjoining cattle-shed, take neither food nor water from any other caste, and have their own special priests. The language mainly spoken throughout the State is Mārwārī, the most important of the four main groups of Rājasthānī.

Among castes and tribes the Jāts come first, numbering 220,000, or over 11 per cent. of the total. They are robust and hard-working and the best cultivators in the State, famed for their diligence in improving the land. Next come the Brāhmans (192,000, or nearly 10 per cent.). The principal divisions are the Srīmālis, the Sānchoras, the Pushkarnas, the Nandwāna Borāhs, the Chenniyāts, the Purohits, and the Pāliwāls. They are mostly cultivators, but some are priests or money-lenders or in service. The third most numerous caste is that of the Rājputs (181,000, or over 9 per cent.). They consider any pursuit other than that of arms or government as derogatory to their dignity, and are consequently indifferent cultivators. The principal Rājput clan is that of the ruling family, namely Rāthor, comprising more than 100 septs, the chief of which are Mertia, Jodha, Udāwat, Champāwat. Kūmpāwat, Karnot, Jaitāwat, and Karamsot. After the Rājputs come the Mahājans (171,000, or nearly 9 per cent.). They belong mostly to the Oswāl, Mahesrī, Porwāl, Saraogī, and Agarwāl subdivisions, and are traders and bankers, some having agencies in the remotest parts of India, while a few are in State service. The only other caste exceeding 100,000 is that of the Balais, or Bhāmbis (142,000, or over 7 per cent.). They are among the very lowest castes, and are workers in leather, village drudges, and to a small extent agriculturists. Those who remove the carcases of dead animals from villages or towns are called Dheds. Other fairly numerous castes are the Rebāris (67,000), breeders of camels, sheep, and goats; the Mālis (55,000), market-gardeners and agriculturists; the Chākars or Golās (55,000), the illegitimate offspring of Rājputs, on whom they attend as hereditary servants: and lastly the Kumhārs (51,000), potters, brick-burners, village menials, and, to a small extent, cultivators. Taking the population as a whole, more than 58 per cent. live by the land and about another 3 per cent. are partially agriculturists. Nearly 5 per cent. are engaged in the cotton industry or as tailors, &c.; more than 4 per cent. are stock-breeders and dealers, while commerce and general labour employ over 3 per cent. each.

Christians number 224, of whom 111 are natives. The United Free

Church of Scotland Mission has had a branch at Jodhpur city since 1885.

As already remarked, Jodhpur is, speaking generally, a sandy tract, improving gradually from a mere desert in the west to comparatively fertile lands along the eastern border. The chief natural soils are *mattiyāli*, *bhūri*, *retli*, and *magra* or *tharra*. The first is a clayey loam of three kinds, namely *kāli* (black), *rāti* (red), and *pili* (yellowish), and covers about 18 per cent. of the cultivated area. It does not need frequent manuring, but being stiff requires a good deal of labour; it produces wheat, gram, and cotton, and can be tilled for many years in succession. The second is the most prevalent soil (occupying over 58 per cent. of the cultivated area) and requires but moderate rains. It has less clay than *mattiyāli* and is brown in colour; it is easily amenable to the plough, requires manure, and is generally tilled for three or four years and then left fallow for a similar period. The third class of soil (*retli*) is fine-grained and sandy without any clay, and forms about 19 per cent. of the cultivated area. When found in a depression, it is called *dehri*, and, as it retains the drainage of the adjacent high-lying land, yields good crops of *bājra* and *jowār*; but when on hillocks or mounds, it is called *dhora*, and the sand being coarse-grained, it is a very poor soil requiring frequent rest. *Magra* is a hard soil containing a considerable quantity of stones and pebbles; it is found generally near the slopes of hills, and occupies about 4 per cent. of the cultivated area. The agricultural methods employed are of the simplest description. For the autumn crops, ploughing operations begin with the first fall of sufficient rain (not less than one inch), and the land is ploughed once, twice, or three times, according to the stiffness of the soil. Either a camel or a pair of bullocks is yoked to each plough, but sometimes donkeys or buffaloes are used. More trouble is taken with the cultivation of the spring crops. The land is ploughed from five to seven times, is harrowed and levelled, and more attention is paid to weeding.

Agriculture.

In a considerable portion of the State there is practically only one harvest, the *kharīf*, or, as it is called here, *sāwnū*; and the principal crops are *bājra*, *jowār*, *moth*, *til*, maize, and cotton. The cultivation of *rabi* or *unālu* crops, such as wheat, barley, gram, and mustard seed, is confined to the fertile portion enclosed within the branches of the Lūni river, to the favoured districts along the eastern frontier, and to such other parts as possess wells. Agricultural statistics are available for only a portion of the *khālsa* area (i.e. land paying revenue direct to the State), measuring nearly 4,320 square miles. Of this area, 1,012 square miles (or more than 23 per cent.) were cultivated in 1903-4; and the following were the areas in square miles under the principal crops: *bājra*, 430; *jowār*, 151; wheat, 81; *til*, 66; barley, 23; and cotton, 11.

Of the total cultivated area above mentioned, 150 square miles (or nearly 15 per cent.) were irrigated in 1903–4: namely, 111 from wells, 12 from canals and tanks, and 27 from other sources. There are, in *khālsa* territory, 22 tanks, the most important of which are the Jaswant Sāgar and Sardār Samand, called after the late and the present chief respectively. Irrigation is mainly from wells, of which there are 7,355 in the *khālsa* area. The water is raised sometimes by means of the Persian wheel, and sometimes in leathern buckets. A masonry well costs from Rs. 300 to Rs. 1,000, and a *kachchā* well, which will last many years, from Rs. 150 to Rs. 300. Shallow wells are dug yearly along the banks of rivers at a cost of Rs. 10 to Rs. 20 each, and the water is lifted by a contrivance called *chānch*, which consists of a horizontal wooden beam balanced on a vertical post with a heavy weight at one end and a small leathern bucket or earthen jar at the other.

The main wealth of the desert land consists of the vast herds of camels, cattle, and sheep which roam over its sandy wastes and thrive admirably in the dry climate. The best riding camels of Mārwār breed come from Sheo in the west and are known as Rāma Thalia; they are said to cover 80 or even 100 miles in a night. Mallāni, Phalodi, Shergarh, and Sānkra also supply good riding camels, the price of which ranges from Rs. 150 to Rs. 300. The bullocks of Nāgaur are famous throughout India; a good pair will sometimes fetch over Rs. 300, but the average price is Rs. 150. The districts of Sānchor and Mallāni are remarkable for their breed of milch cows and horses. The latter are noted for their hardiness and ease of pace. The principal horse and cattle fairs are held at Parbatsar in September and at Tilwāra (near Bālatra) in March.

Forests cover an area of about 355 square miles, mostly in the east and south-east. They are managed by a department which was organized in 1888. There are three zones of vegetation. On the higher slopes are found *sālar* (*Boswellia thurifera*), *gol* (*Odina Wodier*), *karayia* (*Sterculia urens*), and *golia dhao* (*Anogeissus latifolia*). On the lower hills and slopes the principal trees are the *dhao* (*Anogeissus pendula*) and *sālar*; while hugging the valleys and at the foot of the slopes are *dhāk* (*Butea frondosa*), *ber* (*Zizyphus Jujuba*), *khair* (*Acacia Catechu*), *dhāman* (*Grewia pilosa*), &c. The forests are entirely closed to camels, sheep, and goats, but cattle are admitted except during the rains. Right-holders obtain forest produce free or at reduced rates, and in years of scarcity the forests are thrown open to the public for grazing, grass-cutting, and the collection of fruits, flowers, &c. The forest revenue in 1904-5 was about Rs 31,000, and the expenditure Rs. 20,000.

The principal mineral found in the State is salt. Its manufacture is

practically a monopoly of the British Government, and is carried on extensively at the SĀMBHAR LAKE, and at DĪDWĀNA and PACHBHADRA. Marble is mostly obtained from MAKRĀNA near the Sāmbhar Lake, but an inferior variety is met with at various points in the Arāvalli Hills, chiefly at Sonāna near Desuri in the south-east. The average yearly out-turn is about 1,000 tons, and the royalty paid to the Darbār ranges from Rs. 16,000 to Rs. 20,000. Sandstone is plentiful in many parts, but varies greatly in texture and in colour. It is quarried in slabs and blocks, large and small, takes a fine polish, and is very suitable for carving and lattice-work. The yearly out-turn is about 6,000 tons. Among minerals of minor importance may be mentioned gypsum, used as cement throughout the country, and found chiefly near Nāgaur; and fuller's earth, existing in beds 5 to 8 feet below the surface in the Phalodi district and near Bārmer, which is largely used as a hair-wash.

Trade and communications.

The manufactures are not remarkable from a commercial point of view. Weaving is an important branch of the ordinary village industry, but nothing beyond coarse cotton and woollen cloths is attempted. Parts of the Jodhpur and Godwār districts are locally famous for their dyeing and printing of cotton fabrics. Turbans for men and scarves for women, dyed and prepared with much labour, together with embroidered silk knotted thread for wearing on the turban, are peculiar to the State. Other manufactures include brass and iron utensils at Jodhpur and Nāgaur, ivory-work at Pāli and Merta, lacquer-work at Jodhpur, Nāgaur, and Bagri (in the Sojat district), marble toys, &c., at Makrāna, felt rugs in the Mallāni and Merta districts, saddles and bridles at Sojat, and camel-trappings and millstones at Bārmer. The Darbār has its own ice and aerated water factory, and there are five wool and cotton-presses belonging to private individuals.

The chief exports are salt, animals, hides, bones, wool, cotton, oil-seeds, marble, sandstone, and millstones; while the chief imports include wheat, barley, maize, gram, rice, sugar, opium, dry fruits, metals, oil, tobacco, timber, and piece-goods. It is estimated that 80 per cent. of the exports and imports are carried by the railway, and the rest by camels, carts, and donkeys, chiefly the former.

The Rājputāna-Mālwā Railway traverses the south-eastern part of the State, and this section was opened for traffic in 1879–80; its length in Jodhpur territory is about 114 miles, and there are 16 stations. A branch of this railway from Sāmbhar to Kuchāwan Road (in the north-east), opened about the same time, has a length of 15 miles with two stations (excluding Sāmbhar). The State has also a railway of its own, constructed gradually between 1881 and 1900, which forms part of the system known as the Jodhpur-Bīkaner Railway. This line runs north-west from Mārwār Junction, on the Rājputāna-Mālwā Railway,

to Lūni junction, and thence (1) to the western border of the State in the direction of Hyderābād in Sind, and (2) north to Jodhpur city. From the latter it runs north-east past Merta Road to Kuchāwan Road, where it again joins the Rājputāna-Mālwā Railway, and from Merta Road it runs north-west to Bīkaner and Bhatinda. The section within Jodhpur limits has a length of 455 miles, and the total capital outlay to the end of 1904 was nearly 122 lakhs. The mean percentage of net earnings on capital outlay from the commencement of operations to the end of 1904 has been 7·90, with a minimum of 3·92 and a maximum of 11·40. In 1904 the gross working expenses were 7 3 lakhs and the net receipts 9·6 lakhs, yielding a profit of 7·86 per cent. on the capital outlay.

The total length of metalled roads is about 47 miles and of unmetalled roads 108 miles. All are maintained by the State. The metalled roads are almost entirely in or near the capital, while the principal unmetalled communication is a portion of the old Agra-Ahmadābād road. It was constructed between 1869 and 1875, was originally metalled, and cost nearly 5 lakhs, to which the British Government contributed Rs. 84,000. It runs from near Beāwar to Erinpura, and, having been superseded by the railway, is now maintained merely as a fair-weather communication.

The Darbār adopted Imperial postal unity in 1885-6; and there are now nearly 100 British post offices and five telegraph offices in the State, in addition to the telegraph offices at the numerous railway stations.

Famine.

The country falls within the area of constant drought, and is liable to frequent famines or years of scarcity. A local proverb tells one to expect 'one lean year in three, one famine year in eight'; and it has proved very true, for since 1792 the State has been visited by seventeen famines. Of those prior to 1868, few details are on record, but the year 1812-13 is described as having been a most calamitous one. The crops failed completely; food-stuffs sold at 3 seers for the rupee, and in places could not be purchased at any price; and the mortality among human beings was appalling. The famine of 1868-9 was one of the severest on record. There was a little rain in June and July, 1868, but none subsequently in that year; the grain-crops failed and forage was so scarce in some places that, while wheat was selling at 6, the price of grass was 5½ seers per rupee. The import duty on grain was abolished, and food was distributed at various places by some of the Rānīs, Thākurs, and wealthy inhabitants; but the Darbār, beyond placing a lakh of rupees at the disposal of the Public Works department, did nothing. The highest recorded price of wheat was 3¾ seers per rupee at Jodhpur city, but even here and at Pāli (the two

principal marts) no grain was to be had for days together. Cholera broke out in 1869 and was followed by a severe type of fever, and it was estimated that from these causes and from starvation the State lost one-third of its population. The mortality among cattle was put at 85 per cent. The next great famine was in 1877–8. The rainfall was only 4½ inches; the *kharīf* crops yielded one-fourth and the *rabi* one-fifth of the normal out-turn, and there was a severe grass famine. Large numbers emigrated to Gujarāt and Mālwā with their cattle, and the Darbār arranged to bring the majority back at the public expense, but it was estimated that 20,000 persons and 80,000 head of cattle were lost. This bad season is said to have cost the State about 10 lakhs. The year 1891–2 was one of triple famine (grain, water, and fodder), the distress being most acute in the western districts. About 200,000 persons emigrated with 662,000 cattle, and only 63 per cent. of the former and 58 per cent of the latter are said to have returned. The Darbār opened numerous relief works and poorhouses; the railway proved a great boon, and there was much private charity. Direct expenditure exceeded 5½ lakhs, while remissions and suspensions of land revenue amounted respectively to about 2·8 and 1·6 lakhs. A succession of bad seasons, commencing from 1895–6, culminated in the terrible famine of 1899–1900. At the capital less than half an inch of rain fell in 1899, chiefly in June, while in two of the western districts the total fall was only one-seventh of an inch. Emigration with cattle began in August, but it was long before the people realized that Mālwā, where salvation is usually to be found, was equally afflicted by drought. Some thousands were brought back by railway to relief works in Jodhpur at the expense of the Darbār, and thousands more toiled back by road, after losing their cattle and selling all their household possessions. Relief works and poorhouses were started on an extensive scale in the autumn of 1899 and kept open till September, 1900. During this period nearly 30 million units were relieved. The total cost to the Darbār exceeded 29 lakhs, and in addition nearly 9¾ lakhs of land revenue, or about 90 per cent. of the demand, was remitted. A virulent type of malarial fever which, as in 1869, immediately followed the famine, claimed many victims. There was no fodder-crop worthy of the name throughout the State, and for some time grass was nearly as dear as grain. The mortality among the cattle was estimated at nearly a million and a half. Since then, the State suffered from scarcity in 1902 in the western districts, and again in 1905.

Administration. For administrative purposes, Jodhpur is divided into twenty-three districts or *hukūmats* (each under an officer called *hākim*). In Mallāni, however, there is, in consequence of its peculiar tenure, size, and recent restoration to the Darbār, an official termed Superintendent, while the north-eastern districts

have also a Superintendent to dispose of border cases under the extradition agreement entered into with the Jaipur and Bīkaner Darbārs.

The State is ordinarily governed by the Mahārājā, assisted by the *Mahakma khās* (a special department consisting of two members) and a consultative Council; but, during the absence of His Highness, first with the Imperial Cadet Corps and next at Pachmarhī in search of health, the administration has, since 1902, been carried on by the *Mahakma khās* under the general supervision and control of the Resident.

For the guidance of its judiciary the State has its own codes and laws, which follow generally the similar enactments of British India. There are now 41 Darbār courts and 44 *jāgīrdārs'* courts possessing various powers.

The normal revenue of the State is between 55 and 56 lakhs, and the expenditure about 36 lakhs. The chief sources of revenue are: salt, including treaty payments, royalty, &c., about 16 lakhs; customs, 10 to 11 lakhs; land (including irrigation), 8 to 9 lakhs; railway, about 8 lakhs (net); and tribute from *jāgīrdārs* and succession fees, &c., about 3½ lakhs. The main items of expenditure are: army (including police), about 7¾ lakhs, civil establishment, 4 lakhs; public works (ordinary), 3 to 4 lakhs; palace and household, about 3 lakhs, and tribute (including payment for the Erinpura Regiment) nearly 2¼ lakhs. During the last few years the expenditure has purposely been kept low, in order to extricate the State from its indebtedness; but now that the financial outlook is brighter, an increased expenditure under various items, such as police, public works, and education, may be expected.

The State had formerly its own silver coinage, one issue being known as *Bijai shāhi* and another as *Ikīsanda*. The *Ikīsanda* rupee was worth from 10 to 12 British annas, while the value of the *Bijai shāhi* was generally much the same as, and sometimes greater than, that of the British rupee. After 1893 exchange fluctuated greatly till, in 1899, 122¾ *Bijai shāhi* rupees exchanged for 100 British. The Darbār thereupon resolved to convert its local coins, and the British silver currency has been made the sole legal tender in the State. In 1900 more than 10,000,000 rupees were recoined at the Calcutta mint.

Of the 4,030 villages in the State only 690 are *khālsa*, or under the direct management of the Darbār, and they occupy about one-seventh of the entire area of the State. The rest of the land is held by *jāgīrdārs*, *bhūmiās*, and *inamdārs*, or by Brahmans, Chārans, or religious and charitable institutions on the *sāsan* or *dohli* tenure, or in lieu of pay (*pasaita*), or for maintenance (*jīvka*), &c., &c. The ordinary *jāgīrdārs* pay a yearly military cess, supposed to be 8 per cent. of the gross rental value (*rekh*) of their estates, and have to supply one horse-

man for every Rs. 1,000 of *rekh*. In the smaller estates they supply one foot-soldier for every Rs. 500, or one camel *sowār* for every Rs. 750. In some cases the *jāgīrdār*, instead of supplying horsemen, &c., makes a cash payment according to a scale fixed by the Darbār. *Jāgīrdārs* have also to pay *hukmnāma* or fee on succession, namely 75 per cent. of the annual rental value of their estates; but, in the case of a son or grandson succeeding, no cess is levied or service demanded for that year, while if a more distant relative succeeds the service alone is excused. The Thākurs of Mallāni, holding prior to the Rāthor conquest, pay a fixed sum (*faujbal*) yearly and have no further obligations. The *bhūmiās* have to perform certain services, such as protecting their villages, escorting treasure, and guarding officials when on tour, and some pay a quit-rent called *bhūm-bāb*; provided these conditions are satisfied, and they conduct themselves peaceably, their lands are not resumed. *Inām* is a rent-free grant for services rendered; it lapses on the failure of lineal descendants of the original grantee, and is sometimes granted for a single life only. *Sāsan* and *dohli* lands are granted in charity on conditions similar to *inām*, and cannot be sold. *Jīvka* is a grant to the younger sons of the chief or of a Thākur. After three generations the holder has to pay cess and succession fee, and supply militia like the ordinary *jāgīrdār*, and on failure of lineal descendants of the original grantee the land reverts to the family of the donor. In the *khālsa* area the proprietary right rests with the Darbār, which deals directly with the *ryots*. The latter may be *bāpidārs*, possessing occupancy rights and paying at favoured rates, or *gair-bāpidārs*, tenants-at-will.

Formerly the land revenue was paid almost entirely in kind. The most prevalent system was that known as *lātā* or *batai*, by which the produce was collected near the village and duly measured or weighed. The share taken by the Darbār varied from one-fifth to one-half in the case of 'dry,' and from one-sixth to one-third in the case of 'wet' crops. This mode still prevails in some of the alienated villages, but in the *khālsa* area a system of cash rents has been in force since 1894. The first and only regular settlement was made between 1894 and 1896 in 566 of the *khālsa* villages (originally for a period of ten years). It is on the *ryotwāri* system. The village area is divided into (1) secure, i.e. irrigated from wells or tanks, where the yearly out-turn varies but slightly, and remissions of revenue are necessary only in years of dire famine; and (2) insecure, or solely dependent on the rainfall. In the former portion the assessment is fixed, and in the latter it fluctuates in proportion to the out-turn of the year. The basis of the assessment was the old *batai* collections together with certain cesses, and the gross yield was calculated from the results of crop experiments made at the time, supplemented by local inquiries. The rates per acre of

wet' land range from Rs. 2–5–6 to Rs. 10 (average, Rs. 2–10–6), while those for 'dry' land range from 1¼ to 12½ annas (average, 4½ annas).

The State maintains two regiments of Imperial Service Lancers (normal strength 605 per regiment), and a local force consisting of about 600 cavalry (including camel *sowārs*) and 2,400 infantry. The artillery numbers 254 of all ranks, and there are 121 guns of various kinds, of which 75 (namely, 45 field and 30 fort) are said to be serviceable. In addition, the irregular militia supplied by the *jāgīrdārs* mustered 2,019 in 1904–5: namely, 1,785 mounted men and 234 infantry. The Imperial Service regiments were raised between 1889 and 1893, and are called the Sardār Risāla, after the present chief. Their cost in 1904–5, when they were considerably below strength, was about 3·2 lakhs. The first regiment formed part of the reserve brigade of the Tīrāh Field Force in 1897–8, and two detachments did well on convoy duty; the same regiment was on active service in China in 1900–1, was largely represented in the expedition to the Laushān hill and Chinausai, and was permitted to bear on its colours and appointments the honorary distinction 'China, 1900' There are no cantonments in the State, but the Darbār contributes a sum of 1·2 lakhs yearly towards the cost of the 43rd (Erinpura) Regiment (*see* ERINPURA).

Police duties have hitherto been performed by the local force above mentioned; but since August, 1905, a regular police force under an Inspector-General, numbering about 1,500 of all ranks and estimated to cost about 2½ lakhs a year, has been formed In addition, a small force is employed on the Jodhpur-Bīkaner Railway.

Besides the Central jail at the capital, there are subsidiary jails at the head-quarters of the several districts, in which persons sentenced to three months' imprisonment or less are confined, and lock-ups for under-trial prisoners at each *thāna* or police-station.

In the literacy of its population Jodhpur stands second among the twenty States and chiefships of Rājputāna, with 5·4 per cent. (10 males and 0·3 females) able to read and write. Excluding numerous indigenous schools, such as Hindu *posāls* and Musalmān *maktabs*, 4 private institutions maintained by certain castes but aided by the Darbār, and a Mission girls' school, there were, in 1905, 33 educational institutions kept up by the State, one of which was for girls. The number on the rolls was nearly 2,300 (more than 50 per cent. being Mahājans and Brāhmans, and 12 per cent. Musalmāns), and the daily average attendance during 1904–5 was about 1,740. The most notable institutions are at the capital: namely, the Arts college, the high school, and the Sanskrit school. Save at the small railway school at Merta Road, where a monthly fee of 2 or 4 annas per pupil is taken, education is free throughout the State, and the expenditure exceeds Rs. 44,000 a year.

There are 24 hospitals and 8 dispensaries in the State, which have accommodation for 342 in-patients. In 1904 more than 178,000 cases, including nearly 3,000 in-patients, were treated, and about 7,700 operations were performed. The State expenditure on medical institutions, including allowances to the Residency Surgeon, is approximately Rs. 70,000 yearly.

Vaccination was started about 1866, is compulsory throughout the State, and not unpopular. A staff of 2 superintendents and 22 vaccinators is maintained, and in 1904–5 they successfully vaccinated 61,000 persons, or nearly 32 per 1,000 of the population.

[C. K. M. Walter, *Gazetteer of Mārwār and Mallāni* (1887); *Rājputāna Gazetteer*, vol. ii (1879, under revision); Sukhdeo Parshad, *The Rāthors, their Origin and Growth* (Allahābād, 1896); *Report on Famine Relief Operations in Mārwār during* 1896–7 *and during* 1899–1900; *Report on the Census of Mārwār in* 1891, vols. i and ii (1891–4); A. Adams, *The Western Rājputāna States* (1899); also *Administration Reports of the Mārwār State* (annually from 1884–5).]

Jodhpur City.—Capital of the State of the same name in Rājputāna, situated in 26° 18′ N. and 73° 1′ E., about 380 miles by rail from Delhi, 590 from Bombay, and 1,330 from Calcutta. The population of the city (including the suburbs) was: (1881) 63,329, (1891) 80,405, and (1901) 79,109. In the two years last mentioned between 76 and 77 per cent. of the inhabitants lived within the city walls. In 1901 Hindus numbered 58,292, or more than 73 per cent. of the total; Musalmāns, 15,811, or 20 per cent.; and Jains, 4,571, or 5 per cent.

Jodhpur takes its name from Rao Jodha, who founded it in 1459. The old wall with four gates built by him is now included within the limits, and is situated in the south-west of the modern city, which lies on sloping ground in the form of a horseshoe around the base of the rock on which stands the fort. It is encircled by a strong massive wall, built in the first half of the eighteenth century, which is 24,600 feet long, 3 to 9 feet thick, and 15 to 30 feet high, and has six gates studded with sharp iron spikes to protect them against elephant ramming. Of these gates, five are called after the towns which they face, namely Jālor, Merta, Nāgaur, Siwāna, and Sojat, while the sixth is named Chānd Pol because it faces the direction in which the new moon (*chānd*) is visible. The walls and towers near the Nāgaur Gate show marks of cannon-balls left by the armies of Jaipur and Bīkaner which, with the aid of the great freebooter, Amīr Khān, marched on Jodhpur about 1807 to support the pretender Dhonkal Singh against Mahārājā Mān Singh. Eventually Amīr Khān changed over to the side of the latter, and the insurgents were forced to retire with considerable loss and ignominy. The fort, which is the finest in Rājputāna, commands the city and, standing in great magnificence on an isolated rock about 400 feet above the sur-

rounding plain, attracts the eye from afar. Its wall, 20 to 120 feet in height and 12 to 70 feet thick, encloses an oblong space about 500 yards in length by 250 in breadth at the widest part. Two main entrances, the Jai Pol at the north-east corner and the Fateh Pol in the south-west, lead up from the city, and between them are several other gates and inner walls erected for purposes of defence. The principal buildings in the fort are a series of apartments forming the palace, the most noteworthy being the Moti Mahal, built by Rājā Sūr Singh in the beginning of the seventeenth century, the Fateh Mahal, built by Mahārājā Ajīt Singh about 100 years later to commemorate the retirement of the Mughal army from his capital, and the room now used as an armoury. These buildings are decorated with beautifully carved panels and pierced screens of red stone. The city contains many handsome buildings, including ten old palaces, some town residences of the Thākurs, and eleven fine temples, the most beautiful architecturally being the Kunj Bihāri-kā-mandar, built in the latter half of the eighteenth century.

Jodhpur is a trading centre, but its industries are unimportant, consisting of lacquer-work, dyeing of cotton cloths, and the manufacture of brass and iron utensils. The main streets are paved; and a light tramway of 2 feet gauge, laid down in 1896 between the railway station and the city, the cars being drawn by bullocks, has proved of great convenience to the public, and has considerably reduced the cost of carriage of grain and other commodities. A municipal committee (established in 1884) attends to the sanitation of the city, and settles disputes relating to rights of easement, &c., the annual expenditure of about Rs. 20,000 being borne solely by the Darbār. A tramway line, worked by buffaloes, runs round the city, passing all but one of the public latrines. Twice a day the loaded wagons are collected and formed into trains outside the Sojatia Gate, whence they are hauled by steam-power a distance of about 5 miles into the open country, where the filth is trenched and the refuse burnt. This steam conservancy tramway is the first of its kind in Rājputāna. The total length of the line, including the section worked by buffaloes, and an extension up to and round the Mahārājā's stables, now exceeds 13 miles. It was completed between 1897 and 1899 at a cost of more than 1¼ lakhs, and the working expenses average about Rs. 7,000 a year. Within the city are three hospitals and a couple of dispensaries. Of the hospitals, one is solely for females and another is maintained by the United Free Church of Scotland Mission. In the suburbs there are hospitals attached to the jail and the Imperial Service cavalry regiments, and a couple of dispensaries, one of which is close to the Residency and is kept up by the British Government, while the other is for railway employés. The city possesses an Arts college, a high school with lower secondary and

primary sections, and a boarding-house for fifty Rājput boys; also two primary schools, a girls' school, and three special institutions where Sanskrit, telegraphy, and surveying are taught. These are all maintained by the Darbār and are for the most part in the suburbs; there are, in addition, numerous private schools in the city. The principal buildings in the suburbs are the late Mahārājā's palace at Rai-kā-bāgh, the fine new palace at Ratanāda which is lighted by electricity, the Imperial Service cavalry lines, the handsome public offices, the Residency and other official buildings, and the jail with accommodation for 862 prisoners.

Jodiya.—Town and chief port of Navānagar State, Kāthiāwār, Bombay, situated in 22° 40′ N. and 70° 26′ E., about 24 miles north-east of Navānagar town, 46 miles north-west of Rājkot, and 40 miles west of Morvi. Population (1901), 7,321. The port was formerly a fishing village on the south-eastern shores of the Gulf of Cutch. The wharf is about a mile and a half distant from the town, with which it is connected by a good made road. A custom-house and a press for cotton and wool bales are at the wharf. The water off this part of the coast is too shallow for ships of any considerable burden. According to a local legend, the Gulf from Jodiya to the opposite coast of Cutch could be crossed by a footpath at low water 200 years ago. The north-west bastion of the fort, 80 feet above the sea, the palace or *darbār* house, 300 yards south-east of the bastion, and a grove of trees, a mile to the south and outside the town, are high and conspicuous marks when nearing the port from seaward. The town is surrounded by a wall with towers and a small interior fort. It has vernacular boys' and girls' schools and a dispensary.

Jogeshvari.—Cave in the Salsette *tāluka* of Thāna District, Bombay, situated in 19° 13′ N. and 72° 59′ E., 2½ miles south-east of Goregaon station, on the Bombay, Baroda, and Central India Railway. It is the third largest of the great Brāhmanical caves of India, the others being Sītā's Bath at Ellora and the Great Cave at Elephanta. Its length is 240 and breadth 200 feet. This cave-temple, which dates from the seventh century, contains rock-cut passages, an immense central hall supported by pillars, porticoes, and subsidiary courts.

[Du Perron (1760), *Zend Avesta*, vol. i, pp. ccclxxxviii–cccxc; Hunter (1784), *Archaeologia*, vol. vii, pp. 295–9; Salt (1806), *Transactions of the Bombay Literary Society*, vol. i, pp. 44–7; *Bombay Gazetteer*, vol. xiv, pp. 110–2.]

Jogighopā.—Village in Goālpāra District, Eastern Bengal and Assam, situated in 26° 14′ N. and 90° 34′ E., on the north bank of the Brahmaputra at the point where it is joined by the Manās. Population (1901), 734. A steam ferry plies between Jogighopā and Goālpāra, and the telegraph wires are carried beneath the river at this point to the south bank. Prior to the annexation of Assam, Jogighopā was

a frontier outpost of Bengal, and a number of Europeans resided here, who forcibly obtained a monopoly of the Bengal trade and were thus enabled to do a lucrative business with the natives who enjoyed similar privileges in Assam. Four large tombs remain as evidence of their occupation, but the inscriptions have disappeared. Jogighopā derives its name from some caves cut out of the rocks near the river bank, which at one time used to be occupied by ascetics. The place is now of little importance, but contains a *tahsīl* belonging to the Bijni estate.

Johi.—*Tāluka* of Lārkāna District, Sind, Bombay, lying between 26° 7′ and 27° N. and 67° 11′ and 67° 47′ E., with an area of 760 square miles. The population in 1901 was 51,218, compared with 51,919 in 1891. The *tāluka* contains 87 villages, of which Johi is the head-quarters. The density, 67 persons per square mile, is much below the District average. In 1903-4 the land revenue and cesses amounted to 1·4 lakhs. About a quarter of the *tāluka* is irrigated by the Western Nāra system and the Manchhar Lake. The remainder depends upon the rainfall, and the harvest is therefore precarious. The soil has great capabilities, and with seasonable rain three crops of *jowār* are obtained from one sowing. Migration to the irrigated tracts accompanies years of scanty rainfall. The Kīrthar Hills bound the *tāluka* on the west.

Jollārpet.—Village and railway station in Salem District, Madras. *See* JALĀRPET.

Joma-male.—Hill in Coorg. *See* SOMA-MALE.

Jorā.—Head-quarters of the Tonwarghār district of Gwalior State, Central India, situated in 26° 20′ N. and 77° 40′ E., on the Gwalior Light Railway. Population (1901), 2,551. The place is usually called Jora-Alāpur, to distinguish it from other places of the same name. Alāpur is a village lying a mile to the north. Jorā contains the ruins of an old fort built by the Karauli chiefs, the usual district offices, a school, a dispensary, a State post office, a *sarai*, a public works inspection bungalow, and a police station.

Jorhāt Subdivision.—Central subdivision of Sibsāgar District, Eastern Bengal and Assam, lying between 26° 22′ and 27° 11′ N. and 93° 57′ and 94° 36′ E., with an area of 819 square miles. About two-fifths of the subdivision lies north of the main channel of the Brahmaputra, and is known as the MAJULI island, a comparatively sparsely peopled tract, liable to damage from flood. The part south of the river is one of the most populous portions of the Assam Valley, and in places has a density exceeding 600 persons per square mile. The swamps fringing the Brahmaputra are inundated in the rains; but farther inland stretches a broad plain, the lower part of which is cultivated with rice, while tea and sugar-cane are grown on the higher land.

The population in 1901 was 219,137, about one-fourth of which was enumerated on tea gardens, as compared with 181,152 in 1891. The subdivision contains one town, JORHĀT (population, 2,899), the head-quarters; and 651 villages. The annual rainfall at Jorhāt town averages 80 inches, but on the eastern border of the subdivision it is a little higher. In 1904 there were altogether 56 tea gardens with 30,851 acres under plant, which gave employment to 62 Europeans and 36,849 natives. The subdivision is particularly well supplied with means of communication, as the Assam-Bengal Railway runs along the south-east, and at Titābar and Mariāni meets a light state railway, which passes through Jorhāt town to the Brahmaputra. The assessment for land revenue and local rates in 1903-4 was Rs. 5,79,000.

Jorhāt Town.—Head-quarters of the subdivision of the same name in Sibsāgar District, Eastern Bengal and Assam, situated in 26° 45′ N. and 94° 13′ E., on the left bank of the Disai river. The town had a population in 1901 of 2,899, and is administered as a Union under (Bengal) Act V of 1876, the expenditure in 1903-4 amounting to nearly Rs. 8,000. Jorhāt was the capital of the Ahom Rājās after Gaurināth Singh had been driven from Rangpur near Sibsāgar at the end of the eighteenth century. It contains a fine tank of excellent water, on the banks of which the subdivisional officer's residence and office have been located, and the remains of considerable earthworks. There is a flourishing bazar, the largest shops in which are owned by Mārwāri merchants, who do a large business with the tea gardens in the neighbourhood. The principal articles of import are cotton piece-goods, grain, salt and oil, the chief exports being mustard seed, cane, and hides. Furniture and haberdashery are sold by Muhammadan traders from Bengal. A colony of Telis has been formed in the town, who express mustard oil in the ordinary bullock-mills of Upper India; and Jorhāt is the chief centre for the manufacture of Assamese jewellery, which usually consists of lac covered with gold and enamel and set with cheap stones. The public buildings include a small jail, a hospital with twenty-four beds, and two high schools which in 1903-4 had an average attendance of 452 boys. A daily market for the sale of native produce is numerously attended; and, owing to the density of the population and the presence of a large number of prosperous gardens in the neighbourhood, Jorhāt has become the most important centre of trade in the District. A light state railway passes through the town, connecting it with the Brahmaputra at Kakilāmukh and with the Assam-Bengal Railway at Mariāni and Titābar. The transfer of the head-quarters of the District from Sibsāgar to Jorhāt has recently been sanctioned.

Joshimath.—Village in Garhwāl District, United Provinces, situated in 30° 33′ N. and 79° 35′ E., at an elevation of 6,107 feet above sea-

level and about 1,500 feet above the confluence of the Dhaulī and Bishangangā, the combined stream being known as the Alaknandā. Population (1900), 468 in summer and a little larger in winter. It is chiefly remarkable as the winter head-quarters of the *rāwal* or chief priest of the temple of BADRĪNĀTH, who retires here after the snows have rendered the higher shrine inaccessible. The village contains several ancient temples, some of which have been much damaged by earthquakes. A police station is opened here during the pilgrim season.

Jotāna.—Petty State in MAHĪ KĀNTHA, Bombay.

Jotiba's Hill (also called Vādi Ratnāgiri).—Hill in the State of Kolhāpur, Bombay, situated in 16° 48′ N. and 74° 13′ E., about 9 miles north-west of Kolhāpur town. It rises about 1,000 feet from the plain in a truncated cone, and, though disconnected, forms part of the Panhāla spur which stretches from the crest of the Western Ghāts to the Kistna. On the wooded hill-top is a small village with 1,400 inhabitants, mostly priests of Jotiba. From very ancient times this hill has been considered especially sacred. In the middle of the village is a group of temples, three of which are dedicated to Jotiba, under the names of Kedārling, Kedāreshwar, and Ramling. According to a local legend, Ambā Bai of Kolhāpur, being disturbed by demons, went to Kedārnāth in the Himālaya hills, practised severe penance, and prayed him to destroy the demons. In answer to her prayers Kedāreshwar came to Jotiba's Hill, bringing with him and setting up the present Kedār *lingam*. The original temple is said to have been built by one Nāvjī Saya. In its place Rānojī Sindhia built the present temple in 1730. The second temple of Kedāreshwar was built by Daulat Rao Sindhia in 1808. The third temple of Rāmling, including the dome, was built about 1780 by one Māljī Nilam Panhālkar. In a small domed shrine in front of the temple of Kedāreshwar are two sacred bulls of black stone. Close to these temples is a shrine sacred to Chopdai, which was built by Priti Rao Himmat Bahādur in 1760. A few yards outside of the village stands a temple of Yamai, built by Rānojī Sindhia. In front of this are two sacred cisterns, one of which is said to have been built by Jijābai Sāhib about 1743; the other, called Jāmadagnya *tīrth*, was built by Rānojī Sindhia. Most of the temples on Jotiba's Hill are made of a fine blue basalt which is found on the hills. In many parts the style of architecture, which is strictly Hindu, is highly ornamented, several of the sculptured figures being covered with brass and silver plates. The chief object of worship is Jotiba, who, though called the son of the sage Pangand, is believed to have been Pangand himself, reincarnated to help the rulers of the Deccan in their fights with the demons. According to tradition, Jotiba's destruction of one of the demons named Ratnāsur gave the

place the name of Ratnāgiri. In honour of the victory over the demon, on the full moon of Chaitra (March–April) a yearly fair is held attended by 40,000 or 50,000 people, some of whom come from great distances. Besides this great fair, small fairs are held every Sunday and full moon day and on the 6th of the bright half of Shrāvan (August). On these days the image is carried round the temple in a litter with great pomp.

Jounpore.—District, *tahsīl*, and city, United Provinces. *See* JAUNPUR.

Jowai Subdivision.—Subdivision of the Khāsi and Jaintiā Hills District, Eastern Bengal and Assam, lying between 24° 58′ and 26° 3′ N. and 91° 59′ and 92° 51′ E., with an area of 2,086 square miles. Jowai originally formed part of the territory of the Jaintiā Rājā, and was acquired from him by the British in 1835. The population in 1901 was 67,921, as compared with 64,521 in 1891, giving a density of 33 persons per square mile. Most of the inhabitants are Syntengs, a tribe of Tibeto-Burman origin akin to the Khāsis. The subdivision contains 640 villages, and is in charge of a European Magistrate, whose head-quarters are at JOWAI, a prosperous village with some local trade. The rainfall is recorded only at Jowai itself, where there is an average annual fall of 237 inches; but on the southern face of the hills the precipitation is probably even greater.

Jowai Village.—Headquarters of the Jowai subdivision of the Khāsi and Jaintiā Hills District, Eastern Bengal and Assam, situated in 25° 26′ N. and 92° 12′ E., at a height of 4,422 feet above the sea. Population (1901), 3,511. Jowai is the head-quarters of the sub-divisional officer, who is almost invariably a European, and it possesses a considerable trade. The chief exports are raw cotton and rubber, the imports are rice, dried fish, cotton goods, and salt. The average annual rainfall is 237 inches.

Jūba.—Deserted fortress in the Surgujā State, Central Provinces, situated in 23° 43′ N. and 83° 26′ E., about 2 miles south-east of Mānpurā village. The fort stands on the rocky shoulder of a hill, and commands a deep gorge overgrown with jungle. Hidden among the trees are the remains of carved temples, almost covered with accumulations of vegetable mould.

Jubbal (*Jubal*).—One of the Simla Hill States, Punjab, lying between 30° 46′ and 31° 8′ N. and 77° 27′ and 77° 50′ E., with an area of 288 square miles. Population (1901), 21,172. Jubbal was originally tributary to Sirmūr, but after the Gurkha War it became independent. The Rānā misgoverned the State, and in 1832 abdicated in favour of the British Government, but soon, however, repented, and in 1840 the State was restored to him. His grandson, Padam Chand, ruled the State with ability from 1877 till his death in 1898, and was succeeded by Gyān Chand, the present Rānā, who is a minor. The State is now

under the management of a British official. The ruling family is by caste Rāthor Rājput. The State contains 84 villages, including DEORHA, its capital, and has an estimated revenue of nearly Rs. 1,52,000. The chief products are grain, tobacco, and opium.

Jubbulpore Division (*Jabalpur*).—Northern Division of the Central Provinces, lying between 21° 36′ and 24° 27′ N. and 78° 4′ and 81° 45′ E., with an area of 18,950 square miles. The head-quarters of the Commissioner are at JUBBULPORE CITY. The Division contains five Districts, as shown below :—

District.	Area in square miles.*	Population, 1901.	Land revenue and cesses, 1903-4, in thousands of rupees.
Saugor	3,962	469,479	5,52
Damoh	2,816	285,326	3,89
Jubbulpore	3,912	680,585	9,67
Mandlā	5,054	318,400	1,97
Seonī	3,206	327,709	3,13
Total	18,950	2,081,499	24,18

* The District figures of area and population have been adjusted to allow for some small transfers of territory since the Census of 1901.

Of these, Saugor and Damoh and the Murwāra *tahsīl* of Jubbulpore lie on the Vindhyan plateau to the north; the southern part of Jubbulpore is situated at the head of the narrow valley through which the Narbadā river flows between the Vindhyan and Sātpurā ranges; while Seonī and Mandlā form part of the Sātpurā plateau to the south. The Division therefore consists generally of hilly country, lying at a considerable elevation and enjoying a comparatively temperate climate. In 1881 the population of the Division was 2,201,573, which increased in 1891 to 2,375,610 or by 8 per cent. The increase was considerably below the average for the Province, the decade having been an unhealthy one, especially in Saugor and Damoh. In 1901 the population was 2,081,916, a decrease of 12 per cent. on the figures of 1891. Since the Census a small transfer of territory has taken place, and the adjusted population is 2,081,499 All Districts of the Division suffered severely from famine during the decade. In 1901 Hindus formed 74 per cent. of the total and Animists 20 per cent. There were 89,731 Musalmāns, 29,918 Jains, and 5,878 Christians, of whom 2,706 were Europeans and Eurasians. The density of population is 110 persons per square mile, as compared with 112 for all British Districts of the Province. The Division contains 11 towns and 8,561 inhabited villages; but JUBBULPORE CITY (90,316) and SAUGOR (42,330) are the only towns with a population of more than 20,000. Thirteen miles from Jubbulpore, at a gorge overhanging the Narbadā river, are the well-known MARBLE ROCKS.

Jubbulpore District.—District in the Jubbulpore Division of the Central Provinces, lying between 22° 49′ and 24° 8′ N. and 79° 21′ and 80° 58′ E., at the head of what may be called the Narbadā Valley proper, with an area of 3,912 square miles. On the north and east it is bounded by the States of Maihar, Pannā, and Rewah; on the west by Damoh District; and on the south by Narsinghpur, Seonī, and Mandlā. The Narbadā, entering the District from the Mandlā highlands on the south-east, winds circuitously through its southern portion, passing within 6 miles of the city of Jubbulpore, and finally leaves it on the south-western border. To the north of the Narbadā extends an open plain, bounded on the north-west by offshoots of the Vindhyan, and on the south-west by those of the Sātpurā range. Farther to the north-west the surface becomes more uneven, small tracts of level alternating with broken and hilly country. The south-western plain, called the Havelī, is one of the richest and most fertile areas in the Province. It consists of a mass of embanked wheat-fields, and occupies the valley of the Hiran and Narbadā rivers, extending from the south-western border of the District as far north as the town of Sihorā, and from the Hiran river flowing close beneath the Vindhyan Hills to the railway line, including also a tract round Sarolī beyond the line. On the western bank of the Hiran, the Bhānrer range of the Vindhyan system forms the boundary between Jubbulpore and Damoh. To the south-east of the Havelī lies a large tract of poor and hilly country, forming the northern foot-hills of the Sātpurā range. North of the Havelī the Vindhyan and the Sātpurā systems approach each other more closely, until they finally almost meet in the Murwāra *tahsīl*. The Kaimur ridge of the Vindhyas commencing at Katangī runs through the west of the Sihorā *tahsīl*, and approaches Murwāra, leaving to the north-west a stretch of hill country with one or two small plateaux. On the east, the Sātpurās run down to the railway between Sihorā and Sleemanābād, and from them a ridge extends northwards till it meets the Vindhyan system at Bijerāghogarh in the extreme north of the District. Between these ranges lie stretches of comparatively open country, less fertile than the Havelī. Lying at the junction of the Vindhyan and Sātpurā ranges, Jubbulpore forms part of the great central watershed of India. The southern part of the District is drained by the Narbadā and its tributaries, the Hiran and Gaur. In the north the Mahānadī, after forming for some distance the boundary between Jubbulpore and Rewah, crosses the Murwāra *tahsīl* and passes on to join the Son, a tributary of the Ganges. The Katnī river flowing by Katnī-Murwāra is an affluent of the Mahānadī. The Ken river rises in the Kaimur range on the west, but flows for only a short distance within the District.

Physical aspects.

The valley of the Narbadā from Jubbulpore to the western boundary

is an alluvial flat, chiefly composed of a stiff red or brown clay with numerous intercalated bands of sand and gravel. *Kankar* abounds throughout the deposit, and pisolitic iron granules are of frequent occurrence. The southern and eastern portions of the District are generally covered by the Deccan trap. In the north is a continuous exposure of sub-metamorphic strata, consisting of fine earthy slate, quartzite, limestone, ribboned jasper passing locally into bluish quartzite, micaceous hematite and other rocks. In these rocks or in association with them the manganese, lead, and copper ores, and the richest iron ores of the District occur. The rocks round Jubbulpore are gneiss.

The plain country is well wooded with mango, tamarind, *ber* (*Zizyphus Jujuba*), guava, *mahuā* (*Bassia latifolia*), and other fruit-bearing trees. Among the ornamental or quasi-religious trees are the banyan, *pīpal*, and *kachnār* (*Bauhinia variegata*). The hills are covered with forest, which formerly suffered great loss from the annual clearing of patches by the hill tribes and from grass fires. The principal timber trees are teak, *sāj* (*Terminalia tomentosa*), *haldu* (*Adina cordifolia*), *tendū* or ebony (*Diospyros tomentosa*), and bamboos. Peaches and pineapples and excellent potatoes and other vegetables are also grown.

The usual wild animals and birds are found in Jubbulpore, and there is a considerable variety of game. Tigers and leopards are the common carnivora; and the deer and antelope tribe includes *sāmbar*, spotted deer, 'black buck,' and the *chinkāra* or Indian gazelle.

The annual rainfall averages 59 inches, and is usually copious, that of Murwāra in the north being somewhat lighter and also apparently more variable. The climate is pleasant and salubrious. The average maximum temperature in May does not exceed 106°, and in the cold season light frosts are not infrequent.

History.

The village of Tewar, lying a few miles from Jubbulpore, is the site of the old city of Tripura, or Karanbel, the capital of the Kalachuri dynasty. The information available about the Kalachuri or Chedi dynasty has been pieced together from a number of inscriptions found in Jubbulpore District, in Chhattīsgarh, and in Benares[1]. They belonged to the Haihaya Rājputs, and were a branch of the Ratanpur family who governed Chhattīsgarh. Their rise to power possibly dates from shortly after the commencement of the Christian era, and they had an era of their own called the Chedi Samvat, which commenced in A.D. 249. For the first five or six centuries of their rule there remain only a few isolated facts; but for a period of three hundred years, from the ninth to the twelfth century, a complete genealogy has been drawn up. We have the names of eighteen kings, and occasional mention of their marriages or wars with

[1] *Records of the Archaeological Survey*, vol. ix, p. 78 seq.

the surrounding principalities—the Rāthors of Kanauj, the Chandels of Mahobā, and the Paramāras of Mālwā. Their territory comprised the upper valley of the Narbadā. From the twelfth century nothing more is known of them, and the dynasty probably came to an end, eclipsed by the rising power of Rewah or Baghelkhand. At a subsequent period, probably about the fifteenth century, Jubbulpore was included in the territories of the Gond Garhā-Mandlā dynasty, and Garhā was for some time their capital. On the subversion of the Gonds by the Marāthās in 1781, Jubbulpore formed part of the Saugor territories of the Peshwā. It was transferred to the Bhonsla Rājās of Nāgpur in 1798, and became British territory in 1818.

In 1857 Jubbulpore was garrisoned by the 52nd Native Infantry and was the head-quarters of Major Erskine, the Commissioner of the Saugor and Nerbudda Territories, then attached to the North-Western Provinces. In June, 1857, the demeanour of the native troops became suspicious, and the Europeans in the station were collected in the Residency, which was made defensible. The sepoys, however, remained quiet; and in August a movable column of Madras troops arrived from Kamptee, and were sent forward to restore order in the interior of Jubbulpore and Damoh Districts, which were in a very disturbed condition and were being raided by mutineers from Saugor. On September 18 the deposed Gond Rājā of Garhā-Mandlā and his son, who had been detected in a conspiracy against the British, were blown away from guns, and on that night the whole of the 52nd regiment quietly rose and left the station. The Madras troops who were then at Damoh were recalled, and on arriving at Katangī found the rebels on the farther bank of the Hiran river. The passage was forced and the enemy put to flight, and no serious disturbance occurred subsequently. The northern *pargana* of Bijerāghogarh was formerly a Native State. The chief was deposed for participation in the Mutiny, and his territory was incorporated in Jubbulpore District in 1865.

The relics of the different races and religions which at one time or another have been dominant in Jubbulpore are fairly numerous, but are now for the most part in ruins. Remains of numerous old Hindu temples and fragments of carved stone are found in a group of villages on the banks of the Ken river, north-west of Murwāra. These are Rīthi, Chhotī-Deorī, Simrā, Purenī, and Nāndchānd The ruins at Bargaon belong to the Jains. Bilehrī, a little to the south, was once a place of some note; but the only remains now existing are a great tank called Lachhman Sāgar, a smaller tank, and two temples. In the centre of the District the villages of Bahurīband, Rūpnāth, and Tigwān contain another group of remains. Bahurīband ('many embankments') is believed to have once been the site of a large city, con-

jecturally identified by Cunningham with the Tholobana of Ptolemy. The only piece of antiquity now remaining is a large naked Jain statue, with an inscription of the Kalachuri dynasty of Tewar. A small hill at Tigwān, two miles from Bahurībaṇd, is covered with blocks of cut stone, the ruins of many temples which have been destroyed by the railway contractors. At Rūpnāth there is a famous *lingam* of Siva, which is placed in a cleft of the rock, where a stream pours over the Kaimur range; but the place is more interesting as being the site of one of the rock-inscriptions of Asoka. Separate mention is made of Garhā, now included in the city of JUBBULPORE.

Population.

The population of the District at the last three enumerations was as follows: (1881) 687,233, (1891) 748,146, and (1901) 680,585. The increase of 9 per cent. between 1881 and 1891 was smaller than that for the Province as a whole. During the last decade the loss of population has been 9 per cent., being least in the Murwāra *tahsīl*. The District contains three towns, JUBBULPORE CITY, SIHORĀ, and MURWĀRA; and 2,298 inhabited villages. The principal statistics of population in 1901 are shown below:—

Tahsīl.	Area in square miles.	Number of Towns.	Number of Villages.	Population.	Population per square mile.	Percentage of variation in population between 1891 and 1901.	Number of persons able to read and write.
Jubbulpore	1,519	1	1,076	332,488	219	− 8·1	21,097
Sihorā	1,197	1	706	186,424	156	− 12·5	7,974
Murwāra	1,196	1	516	161,673	135	− 7·2	6,745
District total	3,912	3	2,298	680,585	174	− 9·0	35,816

The figures for religion show that 87½ per cent. of the people are Hindus, 5½ per cent. Animists, and 5¼ per cent. Muhammadans, while there are 6,177 Jains. Nearly the whole population is returned as speaking the Baghelī dialect of Eastern Hindī; this form of the language closely resembles the dialects of Oudh and Chhattīsgarh, and is found elsewhere in the Central Provinces only in Mandlā. About 5,000 persons are returned as speaking Gondī.

The principal landholding castes are Brāhmans (64,000), Baniās (17,000), Gonds (79,000), Kurmīs (35,000), Rājputs (17,000), and Lodhis (41,000). The Brāhmans hold no very important estates, but numerous small ones, not infrequently assigned to them partly or wholly revenue-free from the time of the Gond rulers. Brāhmans form 9 per cent. of the total population, a fact which is partly to be attributed to the number of sacred places on the Narbadā. Kurmīs and Lodhis are the principal cultivating castes; the Lodhis have several fine

estates, frequently held on quit-rent tenure and locally called *jāgīrs*. The Gonds number nearly 79,000, or 11½ per cent. of the population. The Bhariā Bhumiās (22,000) are another primitive tribe. The Bhumiā proper is the village priest, charged with the worship of the local deities, and generally receiving a free grant of land from the proprietor. The Bhariās, on the other hand, have strong thieving propensities, and are sometimes spoken of as a criminal tribe. The identity of the two is uncertain. The Kols, who number about 46,000, or nearly 7 per cent. of the population, live more in the open country than the Gonds, and are employed as farm-servants or on earth-work. Agriculture supports about 62 per cent. of the population.

Christians number 3,688, of whom 2,044 are Europeans and Eurasians. The Church Missionary Society and the Zanāna Mission of the Church of England, and others belonging to the Wesleyan, American Methodist, and Roman Catholic Churches, are working in the District; all of these have their head-quarters at Jubbulpore city.

Agriculture.

The best soil of the District is the black alluvial clay (*kābar*) or loam (*mund*) of the upper Narbadā valley. The former covers nearly 12 and the latter 26 per cent. of the cultivated area. Sandy rice land formed from crystalline rock covers about 10 per cent., and mixed black and sandy soil, which sometimes produces wheat, nearly 12 per cent. Most of the remaining land is either very shallow blackish soil, or the red and stony land of the hills. About 25 per cent. of the occupied area is generally uncultivated, long resting fallows being required for the shallow stony soil on which light rice and the minor millets are grown. The distinctive feature of agriculture in Jubbulpore is the practice of growing wheat in large embanked fields, in which water is held up during the monsoon season, and run off a fortnight or so before the grain is sown. The advantages of this system are that there is little or no growth of weeds, most of the labour of preparing the land for sowing is saved, and the cultivator is independent of the variable autumn rain, as the fields do not dry up.

With the exception of 1,094 acres settled on the *ryotwāri* system, all land is held on the ordinary *mālguzāri* tenure. The following table gives the principal statistics of cultivation in 1903-4, areas being in square miles:—

Tahsīl.	Total.	Cultivated.	Irrigated.	Cultivable waste.	Forests
Jubbulpore . .	1,519	799	2	412	113
Sihorā .	1,197	563	2	344	96
Murwāra . .	1,196	607	1	354	137
Total	3,912	1,969	5	1,110	346

What waste land remains is situated mainly in the poor and hilly tracts, and does not offer much scope for further extension of cultivation. In the open portion or Havelī, every available acre of land has been taken up, and there are no proper grazing or even standing grounds for cattle. The gross cropped area is about 1,795 square miles, of which 156 square miles are double cropped. Wheat occupies 628 square miles, or 32 per cent. of the cropped area; rice, 193 square miles; *kodon* and *kutkī*, 316 square miles; gram, 184 square miles; and the oilseed *til*, 154 square miles. As in other Districts, there has been considerable deterioration in cropping, wheat, which twelve years ago overshadowed all other crops in importance, being supplanted by millets and oilseeds of inferior value. The area sown singly with wheat is only about a third of what it was, while the practice of mixing it with gram has greatly increased in favour. Little cotton is grown in Jubbulpore, and that of a very coarse variety. Betel-vine gardens exist in a number of places, among the principal being the neighbourhood of Jubbulpore city and Bilehrī. Fruits and vegetables are also grown to supply the local demand.

Cultivation expanded very largely up to 1892, but the famines produced a serious decline, and complete recovery had not been attained in 1903-4. The area sown with two crops has largely increased since 1864. *San*-hemp is a profitable minor crop which has lately come into favour. During the eleven years ending 1904, Rs. 22,000 was borrowed under the Land Improvement Act, mainly for the embankment of fields, and 4·65 lakhs under the Agriculturists' Loans Act, a third of which was distributed in the famine of 1897.

The cattle bred in the District are of no special quality. Many animals of the Gwalior and Saugor breeds are imported from outside, being purchased by the local agriculturists at Garhākotā fair. The price of cattle is said to have risen largely since the famines of 1897 and 1900, owing to the numbers killed for the export of hides and flesh. The returns show that about 13,000 are slaughtered annually, while in 1896-7 the number amounted to 41,000 out of a total of 490,000 shown in the District returns. Grazing is very scarce in the open embanked wheat lands of the Havelī, and most of the cattle are sent to the forests for grazing during the rains, when the fields do not require ploughing. Buffaloes are bred, and the cows are kept for the manufacture of *ghī*, while the young bulls are either allowed to die from neglect or sold in Chhattīsgarh. Good cow buffaloes are expensive, their price being calculated at Rs. 12 or Rs. 13 for each seer of milk that they give. Ponies are bred to a small extent, and were also formerly imported from Saugor, but very few are purchased there now. Those who can afford it keep a pony for riding, as carts cannot travel over many portions of the District. Ponies, bullocks, and buffaloes are

also largely used for pack-carriage. Goats and sheep are kept for food and for the manufacture of *ghī*.

The maximum area irrigated is about 6,000 acres, of which 2,500 are under rice, and the remainder devoted to garden crops, sugar-cane, and a little wheat and barley. There are about 2,500 wells and 134 tanks. The embanked wheat-fields, which cover about 310 square miles, are, however, practically irrigated, and the crops grown in them are very seldom affected by deficiency of rainfall.

The total area of Government forests is 346 square miles, or 9 per cent. of the District area. The forests are scattered in small patches all over the hilly tract east of the railway along the length of the District, while to the west lies one important block in the Murwāra *tahsīl*, and a few smaller ones. The *sāl*-tree (*Shorea robusta*) occupies a portion of the Murwāra forests. The remainder are of the type familiar on the dry hills of Central India—low scrub jungle, usually open and composed of a large variety of species, few of which, however, yield timber or attain large dimensions. Teak is found in places mixed with other species. Among the more important minor products may be mentioned the *mahuā* flower, myrabolams, and honey. The forest revenue in 1903–4 was Rs. 42,000.

Minerals.

Iron ores, some of which are very rich, occur in several parts of the District, particularly in the Sihorā *tahsīl*. The iron is smelted in small furnaces by Agariās, and sold at Rs. 2–8 a maund. Owing to the imperfect methods of refining, however, 50 per cent. is lost in working it up. The iron is of excellent quality, as it is smelted with charcoal, but it is believed that the deposits are not sufficiently large to repay the expenditure of capital on ironworks. Steel is made with manganese by similar methods at Johlī in Sihorā, and used locally for agricultural implements. Manganese ores occur at Gosalpur, Sihorā, Khitolā, and other villages, and mining leases have been taken out. Copper ores and argentiferous galena with traces of gold occur at Sleemanābād, and a mining lease has been obtained by a barrister of Jubbulpore. The limestone deposits of Murwāra are worked by a number of capitalists, European and native. The aggregate sales of lime in 1904 were 50,000 tons, valued at nearly 5 lakhs. About 2,500 labourers are employed, principally Kols and Gonds. The largest manufacturers of lime also own a fuller's earth quarry, the produce of which is sold to paper-mills. Agate pebbles are abundant in the detritus formed by the Deccan trap, and are worked up into various articles of ornament by the local lapidaries. The true or Sulaimāni onyx is said to be sent to Cambay from Jubbulpore. There are a number of sandstone quarries in or near Murwāra, from which excellent stone is obtained and exported in the shape of posts and slabs. Chips of limestone marble are exported for the facing of walls.

Trade and communications.

Cotton hand-weaving was formerly an important industry, but has been reduced by the competition of the mills. The principal centres are Garhā and Majholī. The coloured *sāris* generally worn by women are still woven by hand. The best cloths and carpets are dyed after being woven, *āl* or Indian madder being used for these heavy cloths, as the foreign dyes change colour and are partly fugitive. Bijerāghogarh in Murwāra and Ramkhiriā and Indrāna in Sihorā are the principal dyeing centres. Brass and copper vessels are made at Jubbulpore, by both hammering and casting, and cups and ornaments at Panāgar. Glass bangles and the round glass flasks in which Ganges water is carried are produced at Katangī. At Tewar near the Marble Rocks various kinds of vessels of white sandstone, marble images, agate studs, and other small ornaments are made by the caste of Larhiās or stone-cutters.

The Gokuldās Spinning and Weaving Mills, with 288 looms and 15,264 spindles, produced 10,200 cwt. of yarn and 4,798 cwt. of cloth in 1904. The mills are being enlarged by the addition of 300 looms. Only the coarser counts of yarn are woven, and the produce is sold locally. Large pottery works, started in 1892, turn out roofing and flooring tiles, bricks, and stoneware pipes, which are sold in the local market and also exported. The raw material is obtained from the large deposits of white clay formed from the limestone rocks, and the value of the produce in 1904 was 2 lakhs. A brewery, which was opened in 1897, sends beer to all parts of India. In connexion with the brewery, there is an ice factory which supplies the local demand. All these factories and also a gun-carriage factory and an oil- and flour-mill are situated at Jubbulpore. In Murwāra eight small flour-mills have been started, being worked by water power and owned by natives; and there are also paint- and oil-mills, worked by water power, in which chocolate-coloured paint is produced from yellow ochre and red oxide of iron. There are six printing presses in the city of Jubbulpore.

Wheat and oilseeds are the principal exports. Hemp (*san*) is sent to both Calcutta and Bombay for export to England. Considerable quantities of *ghī* and forest produce are dispatched from Jubbulpore, but most of this comes from Seonī and Mandlā. Hides and horns, bones, and dried beef are also largely exported. Other exports are the manufactured and mineral products already mentioned. Salt comes principally from the Sāmbhar Lake and also from Bombay and Gujarāt, sugar from the Mauritius, and *gur* (unrefined sugar) from Bihār. Kerosene oil is now universally used for lighting, vegetable oil being quite unable to compete with it. Cotton cloth is imported from Ahmadābād and also from the Berār and Nāgpur mills, as the local mills cannot weave cloth of any fineness. There is a considerable trade in aniline dyes, and synthetic indigo has begun to find a market within the last

few years. Transparent glass bangles are now brought in large numbers from Germany. A European firm, dealing in oilseeds, wheat, and myrabolams, has most of the export trade. The rest of the traffic is managed by Bhātias from Bombay and Cutchī Muhammadans. Mārwāris act only as local brokers, and do not export grain by rail. The leading weekly markets are at Panāgar, Barelā, Shahpurā, Pātan, Katangī, Bilherī, Silondī, and Umariā. Numerous religious fairs are held at the different sacred places on the Narbadā and elsewhere, but trade is important only at those of Bherāghāt and Kūmbhi.

The main line of railway from Bombay to Calcutta runs through the centre of the District with a length of 93 miles, and nine stations are situated within its limits, including the three towns of Jubbulpore, Sihorā, and Murwāra. At Jubbulpore the Great Indian Peninsula Railway meets the East Indian. From Katnī junction the Bīna-Katnī connexion of the Great Indian Peninsula Railway branches off to Damoh and Saugor in the west, and a branch of the Bengal-Nāgpur Railway leads east to Bilāspur. The Sātpurā extension of the Bengal-Nāgpur Railway, which connects Jubbulpore with Gondiā station, situated about 80 miles from Nāgpur towards Calcutta, has recently been completed.

From Jubbulpore a number of metalled roads lead to outlying Districts which, before the opening of the recently constructed railway lines, were important trade and military routes. These are the Jubbulpore-Damoh (63 miles), the Jubbulpore-Seonī (86 miles), and the Jubbulpore-Mandlā (58 miles) roads. Other roads lead from Jubbulpore to Pātan, Deorī, and Dindorī in Mandlā, of which the two latter are partly metalled, while the Pātan road is unmetalled. From the south-west of the District trade goes to Shahpurā station. The principal roads from Sihorā are towards Pātan and Majholī, and are unmetalled. A considerable amount of trade comes to Katnī from the Native States to the north, chiefly by roads from Bijerāghogarh, from Rewah through Barhī, and from Damoh. The communications in the south of the District are excellent, but those in the north are not so advanced, apart from the railways. The total length of metalled roads is 108 miles and of unmetalled roads 301 miles, and the expenditure on maintenance in 1903–4 was Rs. 67,000. More than 200 miles of the more important roads are managed by the Public Works department, and the remainder by the District council. There are avenues of trees on 74 miles.

Famine.

Failures of crops occurred in Jubbulpore District from excessive winter rain in 1818–9 and from deficiency of rainfall in 1833–4, causing considerable distress. In 1868–9, the year of the Bundelkhand famine, the Murwāra *tahsīl* was severely affected, and a large decrease of population was shown at the

following Census. The District then continued prosperous until 1893–4, when for three years in succession the spring crops were spoilt by excessive winter rain. The poorer classes were distressed in 1896, and some relief was necessary, while in the following year Jubbulpore was very severely affected. Nearly 100,000 persons, or 13 per cent. of the population, were in receipt of relief in March, 1897, and the total expenditure was 19 lakhs. After two favourable seasons followed the famine of 1899–1900. The failure of crops in this was, if anything, more extensive than in 1897; but the people were in a better condition to meet it, and owing to the generous administration of relief the effect of the famine was far less marked. The numbers on relief reached 65,000, or nearly 9 per cent. of the population, in July, 1900, and the total expenditure was 9 lakhs. A number of tanks were constructed or repaired by Government agency and some field embankments were made, besides various improvements in communications.

Administration.

The Deputy-Commissioner is aided by four Assistant and Extra-Assistant Commissioners. For administrative purposes the District is divided into three *tahsīls*, each of which has a *tahsīldār*, with *naib-tahsīldārs* at Sihorā and Murwārā. Jubbulpore is the head-quarters of an Executive Engineer, who is in charge of Jubbulpore, Mandlā, and Seonī Districts, of an Executive Engineer for irrigation, and of a Forest officer.

The civil judicial staff consists of a District and three Subordinate Judges, a Small Cause Court Judge for Jubbulpore city, and a Munsif for the Jubbulpore *tahsil*. The Divisional and Sessions Judge of the Jubbulpore Division has jurisdiction in the District. Crime is light, but the District is sometimes visited by professional coiners or dacoits from the neighbouring Native States.

Neither the Gond nor the Marāthā government had any fixed principles for the realization of revenue, nor were any rights in land recognized. The policy of the Marāthās was directed merely to the extortion of as much money as possible. Rents were commonly collected from the ryots direct, and when farming was practised short leases only were granted on very high rents, which sometimes amounted to more than the village 'assets.' For some years after the cession in 1818 short-term settlements were made, the demand being fixed on the first occasion at 4·18 lakhs, subsequently rising in 1825 to 6·41 lakhs. This assessment proved, however, too heavy, and in 1835 a twenty years' settlement was made and the revenue fixed at 4·76 lakhs. Under it the District prospered greatly. Revision was postponed for some years owing to the Mutiny; but in 1863 a thirty years' settlement was concluded, at which the revenue was raised to 5·69 lakhs, including Rs. 60,000 assessed on the subsequently included estate of Bijerāghogarh. During the currency of this settlement, which almost coin-

cided with the opening of the railway, Jubbulpore enjoyed a period of great agricultural prosperity. Cultivation increased by 35 per cent. and the price of wheat by 239 per cent., while that of other grains doubled. The income of the landholders rose by 61 per cent., mainly owing to large enhancements of the rental. The latest settlement, commenced in 1888 and completed in 1894, raised the revenue to 10 lakhs, an increase of 65 per cent. The new assessment was not excessive, and would have been easily payable; but the successive disastrous seasons, of which mention has been made, necessitated substantial reductions in the demand, and the revenue in 1903–4 had been reduced to Rs. 8,77,000. The average rental incidence per cultivated acre at settlement was Rs. 1–3–8 (maximum Rs. 3–12–1, minimum R. 0–3–1), and the revenue incidence was R. 0–11–11 (maximum Rs. 1–15–3, minimum R. 0–1–7).

The total receipts from land revenue and from all sources have been, in thousands of rupees:—

	1880–1.	1890–1.	1900–1.	1903–4.
Land revenue . .	5,73	5,78	9,16	8,67
Total revenue . .	11,41	12,76	14,87	15,03

Local affairs outside municipal areas are entrusted to a District council, under which are three local boards, each having jurisdiction over one *tahsīl*. The local boards have no independent income, but perform inspection duty and supervise minor improvements. The income of the District council in 1903–4 was Rs. 87,000. The expenditure was Rs. 84,000, mainly on public works (Rs. 29,000) and education (Rs. 24,000). JUBBULPORE CITY, SIHORĀ, and MURWĀRA are municipalities.

The police force consists of 751 officers and men, including a special reserve of 55 men, 8 railway police, and 10 mounted constables, under a District Superintendent. There are 1,721 village watchmen for 2,298 inhabited villages. The District has a Central jail, with accommodation for 1,463 prisoners, including 150 female prisoners. The daily average number of male prisoners in 1904 was 777, and of female prisoners 32. Cloth for pillow and mattress cases, net money-bags, wire netting, and Scotch and Kidderminster carpets are made in the Central jail.

In respect of education Jubbulpore stands second among the Districts of the Province, 5·3 per cent. of the population (10 males and 0·6 females) being able to read and write. Statistics of the number of pupils under instruction are as follows: (1880–1) 8,300, (1890–1) 9,805, (1900–1) 12,070, (1903–4) 14,141, including 1,811 girls. The educational institutions comprise an Arts college in

Jubbulpore city, which also contains law and engineering classes; 3 high schools; 3 training schools for teachers; 6 English and 15 vernacular middle schools; 164 primary schools; and 2 special schools. The total expenditure on education in 1903–4 was Rs. 1,40,000, of which Rs. 16,000 was realized from fees. The percentage of children under instruction to those of school-going age is 14. Jubbulpore city also contains a Reformatory, to which youthful offenders from the whole Province are sent and taught different handicrafts. It had 125 inmates in 1904.

The District has 14 hospitals and dispensaries, with accommodation for 131 in-patients. In 1904 the number of cases treated was 106,386, of whom 1,585 were in patients, and 3,422 operations were performed. The expenditure was Rs. 20,000, chiefly from Provincial funds. A lunatic asylum at Jubbulpore contains 178 patients.

Vaccination is compulsory in the municipalities of Jubbulpore city (including the cantonment), Sihorā, and Murwāra. The proportion of successful vaccinations in 1903–4 was 33 per 1,000 of the population.

[Khān Bahādur Aulād Husain, *Settlement Report* (1895). A District Gazetteer is being compiled.]

Jubbulpore Tahsīl.—Southern *tahsīl* of Jubbulpore District, Central Provinces, lying between 22° 49′ and 23° 32′ N. and 79° 21′ and 80° 36′ E., with an area of 1,519 square miles. The population decreased from 361,889 in 1891 to 332,488 in 1901. The density is 219 persons per square mile, which is considerably above the District average. The *tahsīl* contains one town, JUBBULPORE CITY (population, 90,316), the head-quarters of the District and *tahsīl*: and 1,076 inhabited villages. Excluding 113 square miles of Government forest, 63 per cent. of the available area is occupied for cultivation. The cultivated area in 1903–4 was 799 square miles. The demand for land revenue in the same year was Rs. 4,54,000, and for cesses Rs. 51,000. The *tahsīl* contains part of the highly fertile wheat-growing tract known as the Jubbulpore Haveli on the west, some good but uneven land lying east of the railway, and some hill and forest country to the east towards Kundam and Baghrāji and also on the southern border.

Jubbulpore City.—Head quarters of the Division, District, and *tahsīl* of the same name, Central Provinces, situated in 23° 10′ N. and 79° 57′ E., 616 miles from Bombay by the Great Indian Peninsula Railway, and 784 miles from Calcutta by the East Indian, the two lines meeting here. A branch narrow-gauge railway has recently been opened to Gondiā, 117 miles distant, on the Bengal-Nāgpur system. The city stands in a rocky basin surrounded by low hills, about 6 miles from the Narbadā river. The gorge of the Narbadā at Bherāghāt, where the river passes through the well-known MARBLE

ROCKS, is 13 miles distant. Jubbulpore is well laid out, with broad and regular streets, and numerous tanks and gardens have been constructed in the environs. Its elevation is 1,306 feet above sea-level. The climate is comparatively cool, and Jubbulpore is generally considered the most desirable of the plain stations in the Central Provinces, of which it ranks as the second city. It is steadily increasing in importance, the population at the last four enumerations having been: (1872) 55,188, (1881) 75,075, (1891) 84,481, and (1901) 90,316. Of the total in 1901, 63,997 were Hindus, 21,036 Muhammadans, and 3,432 Christians, of whom 2,000 were Europeans and Eurasians. Four miles to the west of the city, and included in the municipality, is Garhā, once the capital of the Gond dynasty of Garhā-Mandlā, whose ancient keep, known as the Madan Mahal, still crowns a low granite range with the old town lying beneath it. This was constructed about 1100 by Madan Singh, and is now in ruins. It is a small building of no architectural pretensions, and its only interest lies in its picturesque position, perched upon the top of the hill on a huge boulder of rock. In the sixteenth century the capital was removed to Mandlā, and the importance of Garhā declined. Of the history of Jubbulpore itself nothing is known until it was selected by the Marāthās as their head-quarters on the annexation of Mandlā in 1781. In an old inscription now in the Nāgpur Museum the name is given as Javalipatna. Jubbulpore subsequently became the head quarters of the Commissioner of the Saugor and Nerbudda Territories, which were merged in the Central Provinces in 1861.

A municipality was constituted in 1864. The municipal receipts and expenditure during the decade ending 1901 averaged Rs. 2,62,000 and Rs. 2,57,000 respectively. In 1903–4 the income was Rs. 3,54,000, the main sources being octroi (Rs. 1,65,000) and water rate (Rs. 29,000); and the total expenditure was Rs. 2,38,000, including refunds (Rs. 56,000), conservancy (Rs. 34,000), repayment of loans (Rs. 28,000), general administration and collection of taxes (Rs. 21,000), and water supply (Rs. 13,000). Previous to the construction of the existing water-works, the town depended for its supply on a number of unreliable wells, and it was not uncommon for water to be retailed in the hot season at one or two annas a pot. The water-works were opened in 1883, and extended to the cantonment and the civil station in 1894. They consist of a reservoir constructed on the Khandāri stream, about seven miles from the city. The masonry embankment is 1,680 feet long and 66 feet high, and the catchment area of the reservoir is 5½ square miles. Water is conveyed to the city in pipes by gravitation. The total cost of the works was 9·4 lakhs, including the extension. The effect of the constant intake of water in a city whose situation does not provide good natural drainage has, however, been to render

the ground somewhat sodden, and a drainage scheme to counteract this tendency is under consideration.

Jubbulpore includes a cantonment with a population of 13,157. The receipts and expenditure of the cantonment fund during the decade ending 1901 averaged about Rs. 25,000, and in 1903–4 they amounted to Rs. 32,000. The ordinary garrison has hitherto consisted of one battalion of British and one of Native infantry, a squadron of Native cavalry, and two field batteries; but it is proposed to increase it. There are also two companies of Railway Volunteers, and one of the Nāgpur Volunteer Rifles. Jubbulpore is the head-quarters of a general officer, and the garrison is included in the Mhow division. A central gun-carriage factory for India was opened in 1905. A Government grass farm, combined with a military dairy, has also been established.

Jubbulpore is an important commercial and industrial town. It receives the grain and other produce of the greater part of Jubbulpore District, and of portions of Seonī and Mandlā. The factories include spinning and weaving mills, pottery works, a brewery and ice factory, oil- and flour-mills, the workshops of the Great Indian Peninsula Railway, and four hydraulic presses for *san*-hemp. The local handicrafts are cloth-weaving, brass-working, stone-cutting, and the manufacture of images from marble, and of studs, buttons, and other ornaments from agate pebbles. Till lately a considerable tent-making industry was carried on, at first by the Thags, who were kept in confinement here, and their descendants, and afterwards at a Reformatory school; but this has now ceased. There are six printing presses, with English, Hindī, and Urdū type; and an English weekly and a Hindī newspaper are published.

Jubbulpore is the head-quarters not only of the ordinary District staff, but of the Commissioner and Divisional Judge of the Jubbulpore Division, a Conservator of Forests, a Superintending and an Irrigation Engineer, the Superintendent of Telegraphs for the Central Provinces, and an Inspector of Schools. One of the three Central jails and one of the two lunatic asylums in the Province are located here. The industries carried on in the Central jail include the weaving of cloth for pillow and mattress cases, and of net money-bags, the manufacture of wire netting for local use, and of thick bedding cloth and Scotch and Kidderminster carpets for sale. Fifty-five looms were employed in making carpets in 1903–4. The Church Missionary Society, the Zanāna Mission, and the Roman Catholic, Wesleyan, and American Methodist Churches have mission stations in Jubbulpore, and support several orphanages and schools. A Government Arts college affiliated to the Allahābād University, with law and engineering classes attached to it, had 114 students in 1903–4. There are also three high schools, one maintained by the Church Missionary Society with 79 pupils,

one by a Muhammadan society with 8 pupils, and one by a Hindu society with 87 pupils, training institutions for male and female teachers, and 53 other schools. Schools for European boys and girls are maintained by the Church Missionary Society and the Roman Catholic Mission, with the assistance of Government grants. There is also a Reformatory, to which youthful offenders from the whole Province are sent and taught different handicrafts. It contains 125 inmates, and is the successor of the old school for the children of Thags arrested in the Central Provinces. Jubbulpore contains a general hospital, the Lady Elgin Hospital for women, three dispensaries, and a veterinary dispensary.

Jubo.—Town in the State of Khairpur, Sind, Bombay, situated in 26° 22′ N. and 69° 34′ E. Population (1901), 6,924. The inhabitants deal chiefly in goats and sheep; and rough carpets of goat's hair are also manufactured. Jubo contains the ruins of a fort built by the late Mīr.

Jūkal.—'Crown' sub-*tāluk* of the Atrāf-i-balda District, Hyderābād State, lying to the south-west of Nizāmābād District, with an area of 87 square miles. Its population in 1901 was 15,789, compared with 10,883 in 1891. The sub-*tāluk* contains 22 villages, and Jūkal (3,350) is the head-quarters. The land revenue in 1901 was Rs. 66,000. The soil is mostly *regar* or black cotton soil.

Jullundur Division (*Jālandhar*).—A Division of the Punjab, stretching from the borders of Tibet on the north-east across the valleys of the Upper Beās and Sutlej to the borders of the Bīkaner desert on the south-west. It lies between 29° 55′ and 32° 59′ N. and 73° 52′ and 78° 42′ E. The Commissioner's head-quarters are at the town of Jullundur. The Division comprises all varieties of scene and soil, from the tumbled masses of the Outer Himālayas, in Kulū and Kāngra, to the fertile plains of Jullundur or the arid tracts of Ferozepore. The population increased from 3,787,945 in 1881 to 4,217,670 in 1891, and to 4,306,662 in 1901. The area is 19,410 square miles, and the density of population 222 persons per square mile, as compared with 209 for the Province as a whole. In 1901 Hindus formed 52 per cent. of the population (2,242,490), while other religions included 1,457,193 Muhammadans, 591,437 Sikhs, 5,562 Jains, 4,176 Buddhists, 33 Pārsīs, and 5,766 Christians (of whom 1,919 were natives). The Division contains five Districts, as shown in the table on the next page.

Of these, Kāngra lies entirely in the hills, sloping away to the sub-montane District of Hoshiārpur. The rest lie in the plains. The Division contains 6,415 villages and 37 towns, of which the following had in 1901 a population exceeding 20,000: JULLUNDUR (67,735), FEROZEPORE (49,341), and LUDHIĀNA (48,649). Besides the adminis-

District.	Area in square miles.	Population, 1901.	Land revenue and cesses, 1903-4, in thousands of rupees.
Kāngra	9,978	768,124	10,73
Hoshiārpur . . .	2,244	989,782	16,41
Jullundur . . .	1,431	917,587	17,75
Ludhiāna . . .	1,455	673,097	12,42
Ferozepore . . .	4,302	958,072	14,27
Total	19,410	4,306.662	71,58

trative charge of these British Districts, the Commissioner has political control over five Native States, which are shown below, with their area and population:

State.	Area in square miles.	Population, 1901.
Kapūrthala . . .	630	314,351
Mandī	1,200	174,045
Māler Kotla . . .	167	77,506
Suket	420	54,676
Farīdkot	642	124,912
Total	3,059	745,490

The total population of these Native States increased from 620,203 in 1881 to 709,811 in 1891, and 745,490 in 1901, of whom 52½ per cent. were Hindus (392,148), while other religions included 245,403 Muhammadans, 105,304 Sikhs, 1,993 Jains, 573 Buddhists, 4 Pārsīs, and 65 Christians. The density of the population is 244 persons per square mile. The States contain 1,053 villages and 12 towns, of which MĀLER KOTLA (21,122) alone exceeds 20,000 inhabitants.

Ludhiāna, Ferozepore, and Jullundur are the only towns of commercial importance, while Kāngra and Jawāla Mukhi are famous for their religious associations. The Division practically corresponds to the ancient Hindu kingdom of Trigartta. Kāngra fort has been many times besieged, while more recent battle-fields are those of Mudki, Ferozeshāh, Alīwāl, and Sobraon in the first Sikh War (1845).

Jullundur District (*Jālandhar*).—District in the Jullundur Division, Punjab, lying between 30° 56′ and 31° 37′ N. and 75° 5′ and 76° 16′ E., with an area of 1,431 square miles. It occupies the southern part of the *doāb* (called the BĪST JULLUNDUR DOĀB), or country between the Beās and Sutlej. The latter river forms its southern border, separating it from Ludhiāna and Ferozepore, and in shape the District is an irregular triangle with its base on that river. The State of Kapūrthala separates it on the west from the Beās and its confluence with the Sutlej. Along its north-east border lies the

District of Hoshiārpur; and in the centre of this portion, between the Jullundur and Nawāshahr *tahsīls*, is a detached tract of Kapūrthala territory which forms the Phagwāra *tahsīl* of that State.

Physical aspects.

The valley of the Sutlej is marked by a high, well-defined bank. North of this lies a plateau whose highest point, at Rāhon near the eastern corner of the District, is 1,012 feet above sea-level. Thence it slopes gradually westwards towards the Beās. No hill or rock breaks the level of this plateau, which lies entirely within the zone of rich cultivable soil that skirts the foot of the Himālayas, and was regarded by the Sikhs as the garden of the Punjab. At places a few acres are covered with sand; but, except in these rare spots, one vast sheet of luxuriant and diverse vegetation spreads over the plain from end to end. South of the high bank of the Sutlej lies the Bet or *khādar*, a strip of alluvial soil annually fertilized by deposits of silt from that river, although the opening of the Sirhind Canal has greatly reduced its flow, and it now runs almost dry for eight months in the year. The only important stream is the East or White Bein, which, rising east of Rāhon and running along the Hoshiārpur border, traverses the Phagwāra *tahsīl* of Kapūrthala State, and thence meanders westwards across the District till it falls into the Sutlej near its junction with the Beās. In its earlier course it receives several torrents from the Siwālik Hills in Hoshiārpur. These bring down deposits of sand, which are doing considerable damage to the cultivated lands on its eastern bank.

The District is situated entirely in the alluvium, and contains nothing of geological interest. Cultivation has advanced to such a point that there is little in the way of natural vegetation beyond the weeds that come up with the crops throughout North-west India. Trees are almost always planted; and, owing to the proximity of the Himālayas, several kinds succeed very well, among them the mango and *ber* (*Zizyphus Jujuba*). The river banks are in places fringed with a dense growth of high grasses, as in Ferozepore and adjoining Districts.

Wolves are seen but very rarely, and towards Kapūrthala antelope, *nīlgai*, and hares are found. Field-rats abound, and do no small amount of damage to the crops.

The climate is, for the plains, temperate. In the hot season, with the exception of June and July, the heat is not excessive; in the cold season frosts are light, and confined to January and February. The average mean temperature of January is 56°, and of June 93°. The mortality varies very much with the rainfall, owing to the prevalence of malaria in rainy years. Plague made its first appearance in the Punjab in the village of Khatkar Kalān in this District in 1897.

Owing to the nearness of the hills, the rainfall is fairly constant.

The annual average varies from 24 inches at Phillaur to 27 at Jullundur, 22 inches falling in the summer months and only 5 in the winter. During the ten years ending 1903 the heaviest fall was 60 inches at Nawāshahr in 1900–1, and the lightest 11 inches, in 1899–1900, at Jullundur. There were disastrous floods in 1875 and 1878, owing to the railway embankment giving insufficient passage to the floods caused by the unusually heavy rains.

History.

Early legends attribute the name of the *doāb* to the Daitya king Jālandhara, who was overwhelmed by Siva under a pile of mountains. His mouth, the legend says, was at JAWĀLA MUKHI, his feet at Multān, where in ancient times the Beās and Sutlej met, and his back under the upper part of the Jullundur Doāb, including the present District. The earliest mention of Jullundur occurs in the accounts of the Buddhist council held at Kuvana, near that city, early in the Christian era, under the auspices of Kanishka. When visited in the seventh century by Hiuen Tsiang, it was the capital of the Rājput kingdom of Trigartta, which also included the modern Districts of Hoshiārpur and Kāngra and the States of Chamba, Mandī, and Suket. Towards the end of the ninth century the *Rājatarangini* records the defeat of Prithwī Chandra, Rājā of Trigartta, by Sankara Chandra of Kashmīr. The town was taken by Ibrāhīm Shāh Ghorī about 1088; and from that time the country appears to have remained under Muhammadan rule, the Jullundur Doāb being generally attached to the province of Lahore. During the Saiyid dynasty (1414–51), however, the authority of Delhi was but weakly maintained; and the *doāb* became the scene of numerous insurrectionary movements, and especially of the long campaign of the Khokhar chief Jasrath against the ruling power. Near Jullundur the Mughal forces concentrated in 1555, when Humāyūn returned to do battle for his kingdom, and the neighbourhood was the scene of Bairām's defeat by the imperial forces in 1560. Adīna Beg, the last and most famous of the governors of Jullundur, played an important part during the downfall of Muhammadan power in the Punjab, holding the balance between the Delhi emperor, the Sikhs, and Ahmad Shāh Durrāni. Both Nūrmahal and Kartārpur were sacked by Ahmad Shāh, and to avenge the desecration of the latter place the Sikhs burnt Jullundur in 1757.

The Sikh revolt against the Mughal power early found strong support in the District, and a number of petty chieftains rapidly established themselves by force of arms as independent rulers throughout the *doāb*. In 1766 the town of Jullundur fell into the hands of the Faizullahpuria *misl*, or confederacy, then led by Khushhāl Singh. His son and successor, Budh Singh, built a masonry fort in the town, while several other leaders fortified themselves in its suburbs. Phillaur was seized

by Budh Singh, who made it the capital of a considerable State; and the Muhammadan Rājputs of Nakodar (on whom the town had been conferred in *jāgīr* during the reign of Jahāngīr) were early ousted by Sardār Tāra Singh, Ghaiba, who built a fort, and made himself master of the surrounding territory. But meanwhile Ranjīt Singh was consolidating his power in the south; Phillaur fell into his hands in 1807, and he converted the *sarai* into a fort to command the passage of the Sutlej; and in 1811 Dīwān Mohkam Chand was dispatched to annex the Faizullahpuria dominions in the Jullundur Doāb. Budh Singh fled across the Sutlej; and though his troops offered some resistance to the invader, the Mahārājā successfully established his authority in the autumn of that year. Thenceforth Jullundur was the capital of the Sikh possessions in the *doāb* till British annexation. Nakodar was seized in 1816, the petty Sardārs were gradually ousted from their estates, and the whole country brought under the direct management of the Sikh governors. Here, as elsewhere, their fiscal administration proved very oppressive, especially under Shaikh Ghulām Muhī-ud-dīn, the last official appointed from the court of Lahore, a tyrannical ruler, who exacted irregular taxes. He made over the tract to his son, Imām-ud-dīn, but neither resided regularly in the *doāb*, their charge being entrusted to lieutenants, the best known of whom were Sandhe Khān in Hoshiārpur and Karīm Bakhsh in Jullundur.

At the close of the first Sikh War the British annexed the whole of the Jullundur Doāb, and it became the Commissionership of the Trans-Sutlej States. For two years the administration was directly under the Supreme Government; but in 1848 the Commissioner became subordinate to the Resident at Lahore, and in the succeeding year, when events forced on the annexation of the Punjab, the administration of the *doāb* was assimilated to the general system The Commissioner's head-quarters were fixed at Jullundur, and the three Districts of Jullundur, Hoshiārpur, and Kāngra were created. The fort at Phillaur was occupied as an artillery magazine, and cantonments formed there and at Nakodar, which continued to be occupied till 1857 and 1854 respectively.

In 1857 the native troops stationed at Jullundur and Phillaur mutinied and marched off to join the rebel forces at Delhi; the authorities were, however, not altogether unprepared, and though the mutineers succeeded in escaping unmolested, they were prevented from doing serious damage. Rājā Randhīr Singh of Kapūrthala rendered invaluable assistance at this time, both in supplying troops and, by the exercise of his personal influence, in helping to preserve the peace of the *doāb*.

The tombs at NAKODAR and Nur Jahān's *sarai* at NŪRMAHAL are the chief remains of antiquarian interest.

The population of the District at the last four enumerations was: (1868) 794,418, (1881) 789,555, (1891) 907,583, and (1901) 917,587, dwelling in 10 towns and 1,216 villages. It increased by 1·1 per cent. during the last decade, the increase being greatest in the Jullundur *tahsīl* and least in Phillaur. The density of population is the highest in the Province. The District is divided into the four *tahsīls* of JULLUNDUR, NAWĀSHAHR, PHILLAUR, and NAKODAR, the head-quarters of each being at the place from which it is named. The chief towns are JULLUNDUR, the head-quarters of the District, and the municipalities of KARTĀRPUR, ALĀWALPUR, PHILLAUR, NŪRMAHAL, RĀHON, NAWĀSHAHR, BANGA, and NAKODAR.

Population.

The following table shows the chief statistics of population in 1901:—

Tahsīl.	Area in square miles.	Number of Towns.	Number of Villages.	Population.	Population per square mile.	Percentage of variation in population between 1891 and 1901.	Number of persons able to read and write.
Jullundur	391	3	409	305,976	782·4	+ 3·6	14,209
Nawāshahr	299	3	274	196,339	656·7	4·5	7,820
Phillaur	298	3	222	192,860	647·2	+ 1·7	6,285
Nakodar	371	1	311	222,412	599·5	+ 2·5	4,789
District total	1,431	10	1,216	917,587	641·2	+ 1·1	33,103

NOTE.—The figures for the areas of *tahsīls* are taken from the revenue returns. The total District area is that given in the *Census Report*.

Muhammadans number 421,011, or more than 45 per cent. of the total; Hindus, 368,051, or 40 per cent.; and Sikhs, 125,817, or nearly 14 per cent. Punjābi is spoken throughout the District.

By far the most numerous caste are the Jats or Jāts, who number 185,000, or 20 per cent. of the total, and own half the villages. About 185 clans are enumerated in the District. Some of these claim a Rājput origin; others have no traditions of being anything but Jats. Taken as a whole, they are an honest, industrious, sturdy, and vigorous folk, addicted to no form of serious crime, except female infanticide. The Muhammadan Jats are inferior to the Hindu and Sikh. The Arains (143,000) come next, comprising one seventh of the total. They are entirely Muhammadans, and are a peaceable people without the sturdy spirit of the Jats, but quite as efficient cultivators. The Rājputs (50,000) come third. More than four-fifths are Muhammadans, but they nearly all preserve Hindu customs. They formerly held a more important position in the District than they do now, and carefully maintain the traditions of their former greatness; and, despising work as beneath their dignity, they are very inferior as agriculturists to the Jats. The Khokhars are entirely Muhammadan

they are often considered Rājputs, but the claim is not generally accepted, and they do not intermarry with Rājputs. The Awāns (12,000) also are all Muhammadans. They claim to have come from Arabia, but their observance of Hindu usages marks them as converts to Islām. Other agricultural tribes worthy of mention are Sainis (16,000), who are clever market-gardeners; Kambohs (6,000), mainly Sikhs; and Gūjars (20,000), who are found everywhere. The Khattrīs (26,000) are the most important of the commercial tribes, the Baniās numbering only 6,000. Of menial tribes the most important are the Chamārs (leather-workers, 96,000), Chūhrās (scavengers, 41,000), Kumhārs (potters, 15,000), Lohārs (blacksmiths, 15,000), Mochīs (cobblers, 20,000), Tarkhāns (carpenters, 32,000, many of whom are landowners), Jhīnwars (watermen, 29,000), Julāhās (weavers, 16,000), Nais (barbers, 15,000), Chhīmbas and Dhobīs (washermen, 12,000), and Telis (oil-pressers, 14,000). Brāhmans number 32,000. Half the population is agricultural and one-fourth industrial.

The Jullundur Mission is one of the stations belonging to the American Presbyterian Board of Foreign Missions. It was established in 1847. In 1901 the District contained 276 native Christians.

Agriculture.

Lying as Jullundur does close to the Outer Himālayas, an absolute failure of the rains is almost unknown; and apart from the protection afforded by the numerous wells, the soil is sufficiently charged with moisture to resist anything but absolute drought. More than 40 per cent. of the cultivated area is a good alluvial loam; patches of clay soil, amounting in all to 13 per cent. of the cultivated area, are found all over the District, while 24 per cent. is sandy soil, of which half is found in the Jullundur *tahsīl*. A small proportion is uncultivable, being covered by sandhills.

The District is held almost entirely by communities of peasant proprietors, large estates covering only about 37 square miles.

The area for which details are available from the revenue records of 1903-4 is 1,357 square miles, as shown below:—

Tahsīl.	Total.	Cultivated.	Irrigated.	Cultivable waste.
Jullundur	391	337	104	23
Nawāshahr	304	217	146	43
Phillaur	291	244	111	19
Nakodar	371	295	118	25
Total	1,357	1,093	479	110

The chief crop of the spring harvest is wheat, which occupied 430 square miles in 1903-4; gram covered 177 square miles; and barley only 16 square miles. Maize is the staple product of the

autumn harvest, occupying 149 square miles, while pulses covered 121. Sugar-cane, which occupied 49 square miles, is commercially of the greatest importance to the cultivator, as he looks to this crop to pay the whole or the greater part of the revenue. Very little great millet is grown (14 square miles), and practically no spiked millet; cotton covered 28 square miles, and rice 3,188 acres.

The cultivated area increased by only 800 acres during the ten years ending 1901, and hardly any further increase can be anticipated. There has, however, been a considerable development of well-sinking, more than 8,000 wells having been constructed since the settlement of 1880–5. Practically no cultivable land is now left untilled; and the pressure on the soil, which in 1901 was, excluding the urban population, 718 persons per cultivated square mile, can only be met by emigration. The District has already sent numbers of its sons to the Chenāb Colony, to the Jamrao Canal in Sind, to Australia and East Africa; and many are in civil or military employment in other parts of India. The remittances of these emigrants add enormously to the natural resources of the District, and the greater portion of the Government revenue collected in it is required by the post offices to enable them to cash money orders issued on them. Loans under the Land Improvement Loans Act for the construction of wells are popular and faithfully applied; during the five years ending 1904 more than Rs. 54,000 was advanced for this purpose. Nothing has been done in the way of improving the quality of the crops grown.

Jullundur is not well adapted for breeding cattle, and it is estimated that for ploughing and working the wells no less than 10,000 bullocks per annum have to be imported. These are generally obtained at the Amritsar, Sirsa, and Hissār fairs, and from Patiāla and Ferozepore. Although some places in the Jullundur Doāb are mentioned in the *Ain-i-Akbari* as famous for a breed of horses, the ponies are not now specially valuable. One horse and four donkey stallions are kept by the District board. There are very few camels, and sheep and goats are not important. The country is so fully cultivated that little ground for grazing is left, except along the Sutlej and in places near the Bein. Large numbers of cattle are driven from a distance to these favoured spots, and considerable sums are levied in grazing fees by the owners of the land.

Of the total area cultivated in 1903–4, 479 square miles, or 44 per cent., were classed as irrigated. Of this area, 477 square miles were irrigated from wells, and 1,455 acres from streams and tanks. In addition, 56 square miles, or 5 per cent., were subject to inundation from the Sutlej. Wells are the mainstay of the District; and there are 28,609 masonry wells worked by cattle, chiefly on the rope-and bucket system, besides 464 unbricked wells, water-lifts, and lever wells.

The Persian wheel is found where the soil is sandy and water near the surface.

The District contains two small plantations 'reserved' under the Forest Act, consisting chiefly of *shīsham* and *kīkar*, and covering 262 acres, with a military Reserve of 885 acres. It is on the whole well wooded, almost every one of the wells which it contains being surrounded by a small coppice; but, as already noticed, waste land is very scarce. Phillaur is the winter head-quarters of the Bashahr Forest division, and a great wood mart, to which quantities of timber are floated down the Sutlej and stored. Much also is brought for sale here from the Beās and the Sirhind Canal.

Kankar is plentiful, the best beds being within a radius of ten miles from Jullundur town. Saltpetre is manufactured from saline earth.

Trade and communications.

A great deal of cotton-weaving is carried on, the principal products being the coarse cotton cloth which supplies most of the dress of the people, and coloured stripes and checks. Large quantities of very coarse cotton fabrics (*khaddar*) are exported to Shikārpur and Sukkur in Sind. Rāhon had once a great reputation for a superior cotton longcloth, but the industry is almost extinct. Silk-weaving is carried on at Jullundur town, and in 1899 employed 250 looms, the estimated out-turn being valued at 2 lakhs. The gold and silver manufactures are flourishing, but in no way remarkable, and the out-turn is insufficient for local requirements. Besides ornaments, silver wire and gold and silver lace are made. The District has some reputation for carpenter's work, and chairs are made at Kartārpur for the wholesale trade. Brass vessels are manufactured in many parts, the output being valued at Rs. 27,000, of which half is exported. The thin pottery known as 'paper pottery' is made in the District, and glazed and coloured tile-work of unusual excellence is turned out at Jullundur by one man. There are two flour-mills at Jullundur town, and attached to one of them is a small iron and brass foundry. The number of factory employés in 1904 was 73.

The traffic of the District is mainly in agricultural produce. In ordinary years grain is imported from Ludhiāna, Ferozepore, and the Sikh States for export to the hills; other articles of import are piece-goods from Delhi, Bombay, and Calcutta, iron from Ferozepore, Amritsar, and Karāchi, brass and copper vessels from Jagādhri, Amritsar, and Delhi, rice from Kāngra, and salt from the Mayo Mines. Sugar and molasses are largely manufactured to supply the markets of Bīkaner, Lahore, the Punjab, and Sind. Wheat, cotton cloth, and silk goods are the other principal exports.

The District is traversed by the main line of the North-Western Railway, and branch lines are contemplated from Jullundur town to

Kapūrthala and Hoshiārpur. It is exceptionally well provided with roads, the total length of metalled roads being 158 miles and of unmetalled roads 337 miles. The most important of the former are the grand trunk road, which traverses the District parallel with the railway, and the road from Jullundur to Hoshiārpur; these, with some minor roads, 62 miles in length in all, are under the Public Works department, the rest being under the District board. The Sutlej is navigable only in the rains; there are twelve ferries.

Famine.

Jullundur, thanks to the excellence of its soil and the nearness of the hills, is but little liable to drought. None of the famines that have visited the Punjab since annexation has affected the District at all seriously, and it was classed by the Irrigation Commission of 1903 as secure from famine. The area of crops matured in the famine year 1899–1900 amounted to 76 per cent. of the normal.

Administration.

The District is in charge of a Deputy-Commissioner, aided by three or four Assistant or Extra-Assistant Commissioners. It is divided into four *tahsīls*, each under a *tahsīldār* assisted by a *naib-tahsīldār*: Jullundur comprises its northern portion, and Nawāshahr, Phillaur, and Nakodar, which lie in that order from east to west, the southern.

The Deputy-Commissioner as District Magistrate is responsible for criminal justice. Civil judicial work is in charge of a District Judge, and both these officers are subordinate to the Divisional and Sessions Judge of the Jullundur Civil Division, which consists of the District of Jullundur alone. There are six Munsifs, three at head-quarters and one at each outlying *tahsīl*. There are also a Cantonment Magistrate at Jullundur and eight honorary magistrates. The common forms of crime are burglary and theft

In the revenue system of Akbar the present District formed part of the Duāba Bist Jālandhar, one of the *sarkārs* of the Lahore *Sūbah*. The later Mughal emperors soon dropped the cash assessments of Rājā Todar Mal as unprofitably just, and leased clusters of villages to the highest bidder. Under the Sikh confederacies even this remnant of system disappeared, and the ruler took whatever he could get. Ranjīt Singh followed the same principle with a greater show of method, giving large grants of land in *jāgīr* on service tenure, and either leasing the rest to farmers or entrusting the collection of the revenue to *kārdars*, who paid him as little as they dared. When in 1846 the *doāb* came into British possession, a summary settlement was made by John Lawrence. The assessment, which amounted to 13¼ lakhs, worked well, and the total demand of the regular settlement (1846–51) was only Rs. 20,000 less. The assessment was again mainly guess-work, the demand of the summary settlement being varied only where circum-

stances suggested an increase or demanded some relief. A revision carried out between 1880 and 1885 resulted in a demand of 15 lakhs. This has been paid very easily ever since, and the District is prosperous and contented. The rates average Rs. 4–10–0 (maximum Rs. 5–8–0, minimum Rs. 3–12–0) on 'wet' land, and Rs. 1–8–0 (maximum Rs. 2–4–0, minimum 12 annas) on 'dry' land. The demand, including cesses, for 1903–4 was 17·8 lakhs. The average size of a proprietary holding is 1·8 acres.

The collections of land revenue alone and of total revenue are shown below, in thousands of rupees :—

	1880-1.	1890-1.	1900-1.	1903-4.
Land revenue	12,24	13,82	14,22	14,05
Total revenue	17,03	19,74	20,42	20,25

The District contains nine municipalities: JULLUNDUR, KARTĀRPUR, ALĀWALPUR, PHILLAUR, NŪRMAHAL, RĀHON, NAWĀSHAHR, BANGA, and NAKODAR. Outside these, local affairs are managed by the District board, which in 1903–4 had an income of Rs. 1,55,000. The expenditure was Rs. 1,48,600, public works and education being the principal items.

The regular police force consists of 453 of all ranks, including 56 cantonment and 78 municipal police. The Superintendent usually has three inspectors under him. The village watchmen number 1,305. There are twelve police stations, two road-posts, and two outposts. The fort at Phillaur was made over in 1891 to the Police Training School and central bureau of the Criminal Identification department. The District jail at head-quarters contains accommodation for 318 prisoners. The chief industries carried on in the jail are the manufacture of paper and lithographic printing.

The District stands nineteenth among the twenty-eight Districts of the Province in respect of the literacy of its population. In 1901 the proportion of literate persons was 3·6 per cent. (6·4 males and 0·3 females). The number of pupils under instruction was 7,624 in 1880–1, 15,102 in 1890–1, 13,191 in 1900–1, and 13,874 in 1903–4. The District possessed in 1903–4 a training school, 6 Anglo-vernacular high schools, 4 Anglo-vernacular and 7 vernacular middle schools, and 3 English and 124 vernacular primary schools for boys, and 23 vernacular primary schools for girls. In addition, there were 7 advanced and 262 elementary (private) schools. The number of girls in the public schools was 699, and in the private schools 941. The most important schools are at Jullundur town. The total expenditure on education in 1903–4 was 1·1 lakhs, the greater part of which was met by Local and Provincial funds.

Besides the Jullundur civil hospital, the District has ten outlying dispensaries. At these institutions 154,504 out-patients and 4,247 in-patients were treated in 1904, and 12,883 operations were performed. The expenditure was Rs. 20,000, contributed in nearly equal shares by District and municipal funds. There is a leper asylum at Dakhni.

The number of successful vaccinations in 1903–4 was 21,801, representing 24 per 1,000 of the population. Vaccination is compulsory in the town of Jullundur.

[H. A. Rose, *District Gazetteer* (in press); W. E. Purser, *Settlement Report* (1892).]

Jullundur Tahsīl (*Jālandhar*).—Northern *tahsīl* of Jullundur District, Punjab, lying between 31° 12′ and 31° 37′ N. and 75° 26′ and 75° 49′ E., with an area of 391 square miles. The population in 1901 was 305,976, compared with 295,301 in 1891. The head-quarters are at the town of JULLUNDUR (population, 67,735); and it also contains the towns of KARTĀRPUR (10,840) and ALAWALPUR (4,423), with 409 villages. The land revenue and cesses in 1903–4 amounted to 4·8 lakhs. The greater part of the *tahsīl* consists of an upland plateau, with a light soil and frequent sand-hillocks, but along the north eastern border is a belt of extremely fertile land averaging about 6 miles in width.

Jullundur Town (*Jālandhar*).— Head-quarters of the Division and District of Jullundur, Punjab, situated in 31° 20′ N. and 75° 35′ E., on the North-Western Railway and grand trunk road. It is distant by rail from Calcutta 1,180 miles, from Bombay 1,247 miles, and from Karāchi 916 miles. Population (1901), including cantonments, 67,735, of whom 24,715 were Hindus, 40,081 Muhammadans, 901 Sikhs, and 1,543 Christians. Jullundur was, when visited by Hiuen Tsiang, a large city, 2 miles in circuit, the capital of a Rājput kingdom. It was taken by Ibrāhīm Shāh of Ghor about 1088. Under the Mughals Jullundur was the capital of a *sarkār*; it was burnt by the Sikhs in 1757, and captured by the Faizullahpuria confederacy in 1766. Ranjīt Singh annexed it in 1811, and in 1846 Jullundur became the head quarters of the territory acquired by the British after the first Sikh War. The town is surrounded by several suburbs known as *bastis*, the most important of which are Basti Dānishmandān (population, 2,770) and Basti Shaikh Darwesh (7,109), founded by Ansāri Shaikhs from Kāniguram in the seventeenth century. The town contains two flour-mills, to one of which is attached a small iron and brass foundry. The number of hands employed in 1904 was 73. Silk is also manufactured, and good carpenter's work is turned out. The municipality was created in 1867. The income during the ten years ending 1902–3 averaged Rs. 70,600, and the expenditure Rs. 68,800. In 1903–4 the income amounted to Rs. 84,300, chiefly from octroi; and the expenditure to Rs. 86,900, the main items being public health (Rs. 32,300) and

administration (Rs. 28,600). The chief educational institutions are four Anglo-vernacular high schools, maintained by the municipality, the Presbyterian Mission, and the two rival branches of the Arya Samāj. There is also a civil hospital.

The cantonment, established in 1846, lies 4 miles to the south-east of the town. Population (1901), 13,280. The garrison usually consists of two batteries of field artillery, one battalion of British infantry, one regiment of Native cavalry, and a battalion of Native infantry, with a regimental dépôt. The income and expenditure from cantonment funds during the ten years ending 1902-3 averaged Rs. 40,000 and Rs. 41,000 respectively. There is an aided Anglo-vernacular high school.

Jumkha.—Petty State in REWĀ KĀNTHA, Bombay.

Jummoo.—Province and town in Kashmīr State. *See* KASHMĪR AND JAMMU and JAMMU TOWN.

Jumna (*Yamuna*; the *Diamouna* of Ptolemy, *Jomanes* of Pliny, and *Jobares* of Arrian).—A great river of Northern India. Rising in the Tehrī State (31° 1′ N., 78° 27′ E.), eight miles west of the lofty mountain Bandarpūnch (20,731 feet), it flows past the sacred shrine of Jamnotrī, and winds through the Outer Himālayas for 80 miles, receiving a few small streams. At the point where it passes into the Dūn, the valley between the Himālayas and the Siwāliks, it receives the TONS, which is there the larger stream. Its course now runs southwest for 22 miles, dividing the Kiarda Dūn (Punjab) from Dehra Dūn (United Provinces); two large affluents, the Giri from Sirmūr on the west and the Asan from Dehra on the east, join it here. The Jumna pierces the Siwāliks 95 miles from its source, at Khārā, and divides Ambāla and Karnāl Districts in the Punjab from Sahāranpur and Muzaffarnagar in the United Provinces. It is a large river at Faizābād, where it gives off the WESTERN and EASTERN JUMNA CANALS. Near Bidhaulī in Muzaffarnagar it turns due south, and runs in that direction for 80 miles, dividing Meerut District from the Punjab, till it reaches Delhi. Ten miles below Delhi it gives off the AGRA CANAL from its western bank at Okhla. It then turns south east for 27 miles to Dankaur, when it again resumes a southerly course. In this portion it receives on the east the Kotha Nadī and the HINDAN, and on the west the Sabī Nadī. Below Delhi the river forms the boundary between Gurgaon District in the Punjab and Bulandshahr and Alīgarh Districts in the United Provinces. It then enters Muttra and, crossing it, turns east till the borders of Agra are reached. Throughout its course in this District, where it receives the BĀNGANGĀ, and also in Etāwah, it winds in a remarkable manner, its bed lying between high banks which are furrowed by steep ravines. Just before Jālaun District is reached the great river CHAMBAL from Rājputāna joins it; and the Jumna then divides the three Districts of Cawnpore, Fatehpur, and Allahābād from

Jālaun, Hamīrpur, and Bāndā. In Cawnpore District the Sengar, and in Fatehpur the Non and Rind, flow into it; close to Hamīrpur it receives the Betwā, and in Bāndā District the Ken. It finally falls into the Ganges below Allahābād, 860 miles from its source.

The Jumna, after issuing from the hills, has a longer course in the United Provinces than the Ganges; but it is not so large or important a river, and does not carry as much water as is required by the canals taken from it. The supply is therefore increased from the Ganges by means of the cut into the Hindan; and the Irrigation Commission (1901) recently proposed to make more water from the Ganges available by increasing the supply of the Lower Ganges Canal through a cut from the Sārdā. The Jumna supplies drinking-water to the cities of Agra and Allahābād, which possesses, when fresh, special virtue in destroying the enteric microbe. It is crossed by railway bridges near Sarsāwā in Sahāranpur, at Delhi, Muttra, Agra, Kālpī (2,626 feet in width), and Allahābād (3,230 feet). The breadth of water surface in the dry season varies from 2,600 feet at Okhla and 1,500 feet at Kālpī to 2,200 feet at Allahābād. The discharge in flood at Okhla is about 41,000 cubic feet per second, but this dwindles away to less than 200 in the dry season. The Jumna drains a total area of about 118,000 square miles.

The traffic on the Jumna was formerly of some importance, and large sums were spent in clearing away reefs of *kankar* (nodular limestone) and conglomerate in Etāwah District. Before the opening of the East Indian Railway, much cotton grown in Bundelkhand was sent down the river from Kālpī. At present timber is carried down the upper portion, and stone and grain in the lower courses. The principal towns on or near its bank are Delhi in the Punjab; and Bāghpat, Māt, Brindāban, Muttra, Mahāban, Agra, Fīrozābād, Batesar, Etāwah, Kālpī, Hamīrpur, and Allahābād in the United Provinces.

Jumna Canal, Eastern.—An important irrigation work in the Upper Doāb of the United Provinces, taking off from the left or eastern bank of the Jumna. The canal is drawn from a branch of the river which divides soon after piercing the Siwāliks. The bed at this point has a rapid slope over boulders and shingle, and the supply is easily maintained by spurs. For some miles the canal itself flows over a similar bed. The main channel is 129 miles long, and there are 729 miles of distributaries and 447 of drains. Immediately after the British occupation of the Doāb, recurring famines pointed to the urgent necessity for irrigation, and surveys commenced in 1809, but work was not begun till 1823. Funds were limited, and the canal was first opened in January, 1830. Sir Proby Cautley's experience on this canal was of great assistance in carrying out the magnificent works of the more important Upper Ganges Canal. The line followed kept closely to that of an old canal of the seventeenth century. It has been

much improved since it was opened, by providing falls (which also supply power for flour-mills) to lessen the slope, and by straightening the channel.

The capital cost at the end of 1830–1 amounted to little more than 4 lakhs, which had increased to 46 lakhs by the end of 1903–4. The canal serves a rich tract in the Districts of Sahāranpur, Muzaffarnagar, and Meerut, lying between the Hindan and Jumna, and falls into the latter river a little below Delhi. It commands an area of 906,000 acres, and in 1903–4 irrigated 305,000 acres. The gross revenue has exceeded working expenses in every year except during the Mutiny; and the net profits are usually high, amounting to 9·9 lakhs or 22 per cent. on the capital outlay in 1903–4, while the gross profits were 14·5 lakhs. Since 1837–8 the canal has not been used for navigation

Jumna Canal, Western.—An important perennial irrigation work in the Punjab, taking off from the west bank of the Jumna, and irrigating Ambāla, Karnāl, Hissār, Rohtak, and Delhi Districts, and parts of the Native States of Patiāla and Jīnd. It is by far the oldest of the great canals in the Province, and originated in 1356, when Fīroz Shāh III utilized the torrent-bed now known as the Chautang to conduct water to the royal gardens at Hissār and Hānsi. This was little more than a monsoon supply-channel, and after about a hundred years water ceased to flow farther than the lands of Kaithal. In 1568 the emperor Akbar re-excavated the work of Fīroz Shāh, and brought a supply from the Jumna and the Somb into the Chautang, and so on to Hānsi and Hissār. This was undoubtedly a perennial canal, as is testified by the ancient bridges at Karnāl and Safīdon, and the complete set of water-courses with which the canal was provided, besides the original *sanad* or working-plan of the canal which is still in existence and promises a supply of water all the year round. A yet more ambitious scheme was undertaken in 1626 by Alī Mardān Khān, the engineer of the emperor Shāh Jahān. The river supply in the western branch of the Jumna was dammed up annually about 14 miles below the present head-works of the canal, and the water led along the drainage line at the foot of the high land through Pānīpat and Sonepat to Delhi. Drainages and escapes were fairly well provided for, and the Pulchaddar aqueduct, which took the canal across the Najafgarh *jhīl* drain near Delhi, was, for the time, a great engineering feat, and was retained, with slight modifications, when the branch was reopened in 1819. The net revenue from the canal was reckoned equal to the maintenance of 12,000 horse. With the decay of the Delhi empire the upkeep of the canal was no longer attended to: water ceased to reach Hānsi and Hissār in 1707, the flow on Fīroz Shāh's line at Safīdon stopped in 1720, and the Delhi branch ceased to flow in 1753–60. The Delhi branch was reopened in 1819, and the Hānsi branch in 1825. The alignment of the canal was, however, by no means satisfactory: and as early as 1846 it was noticed

that the concentrated irrigation, the defective drainage, and the high banks which cut off the flow of the natural drainage of the country, all contributed to rapid deterioration of the soil and decline in health of the people. Saline efflorescence was rapidly spreading, and the inhabitants of the waterlogged area were affected with chronic disorders of the liver and spleen. Between 1870 and 1882 various remodelling schemes were sanctioned, with the object of securing increased control over the supply and its distribution, greater facilities for navigation, and improved drainage; and these have resulted in the complete disappearance of the swamps and accumulations of water, and a most marked improvement in the health of the people. The Sirsa branch was sanctioned in 1888, and this and subsequent minor extensions have largely increased the irrigating capacity of the canal. No less than 200,000 acres were rendered secure in 1896–7 by the Sirsa branch alone.

The head of the canal is at Tajewāla in Ambāla District, in 30° 17′ N. and 77° 37′ E., about 1½ miles from the point where the river emerges from the lower hills. The river is here crossed by a weir 1,700 feet in length, flanked at each end by a scouring sluice and head regulator for the Eastern Jumna Canal on the left bank and for the Western Jumna Canal on the right, the full capacities authorized being respectively 1,300 and 6,380 cubic feet per second. The Western Jumna Canal has thus a maximum discharge more than three times that of the average flow of the Thames at Teddington. For the first 14 miles of its course the canal runs almost entirely in the old west branch of the Jumna river. It then effects a junction with the Somb river, a masonry dam across which holds up the combined streams and forces them into the canal head at Dādūpur, which is provided with a regulator and a rapid a short distance below. After a farther course of about 38 miles, chiefly in natural channels, there is at Indri a regulator with a lock and escape head, where the canal divides into the Sirsa branch and the new main line. The Sirsa branch has a capacity of 2,000 cubic feet per second, and runs for 115 miles, watering the arid tract of country between Indri and Sirsa. Some 31 miles farther on, the main line bifurcates into the Hānsi and new Delhi branches. The Hānsi branch has a length of 47 miles and a discharge of nearly 2,000 cubic feet per second, and gives off the Butāna branch with a capacity of 700 cubic feet per second. The new Delhi branch has a capacity of 1,750 cubic feet per second and a length of 74 miles to the point where it meets the Okhla navigation canal at Delhi. The total length of main canal and branches is 343 miles, of distributaries (major and minor) 1,797 miles, of drainage cuts 657 miles, of escapes 76 miles, and of mill channels 9 miles. The total area commanded by the canal is 4,000 square miles, of which 3,300 square miles are cultivable. The average

area of crops irrigated during the twenty years ending 1894–5 was 529 square miles, which rose in the four years ending 1903–4 to an average of 944 square miles; and the work is estimated to irrigate altogether 1,259 square miles. The capital outlay to the end of March, 1904 (excluding a contribution of 11½ lakhs from the Patiāla State), was 172·7 lakhs. The gross revenue for the three years ending March, 1904, averaged 23 lakhs, and the net revenue, after paying all interest charges and working expenses, 7·6 lakhs, or 4·4 per cent. on the capital outlay. The main line and the new Delhi branch are navigable from the head-works to Delhi. The Hānsi branch is navigable to where it meets the Southern Punjab Railway at Hānsi. The expenditure on the provision for navigation is estimated at 16 lakhs; and, although near Delhi there is a certain amount of boat traffic, and timber is largely rafted down the canal, this large expenditure has proved hitherto a financial loss, and the combination of navigation with irrigation a failure. There are flour-mills at several of the falls; but the flour and the other mills at Delhi, which at one time were worked advantageously, are now closed, the water being too valuable to be used for this purpose.

Junāgarh State.—Native State in the Kāthiāwār Political Agency, Bombay, lying between 20° 44′ and 21° 53′ N. and 70° and 72° E., with an area of 3,284 square miles. It is bounded on the north by Barda and Hālār, on the east by Gohelwār, and on the west and south by the Arabian Sea. The only elevation rising above the general level of the plains is the Girnār group of hills, the highest peak of which, Gorakhnāth, is about 3,666 feet above sea-level. All the hills are volcanic and consist of trap and basalt, but the summit of the Girnār is composed of syenite. The principal rivers are the Bhādar and the Saraswatī. The Bhādar is the largest river in the State, and much irrigation is carried on along its banks and those of its tributaries. The Saraswatī, or sacred river of Prabhās Pātan, is famous in the sacred annals of the Hindus. There is also a densely wooded tract called the Gir, hilly in some parts, but in others so low as to be liable to floods during the rainy season. The climate is fairly healthy; but, except on the Girnār hill, the heat is excessive from the beginning of April to the middle of July. The annual rainfall averages 40 to 50 inches.

Until 1472, when it was conquered by Sultān Mahmūd Begara of Ahmadābād, Junāgarh was a Rājput State, ruled by chiefs of the Chudāsama tribe. During the reign of the emperor Akbar it became a dependency of Delhi, under the immediate authority of the Mughal viceroy of Gujarāt. About 1735, when the representative of the Mughals had lost his authority in Gujarāt, Sher Khān Bābi, a soldier of fortune, expelled the Mughal governor, and established his own

rule. Sher Khān's son Salābat Khān appointed his heir chief of Junāgarh, assigning to his younger sons the lands of Bāntwa. The ruler of Junāgarh first entered into engagements with the British Government in 1807. The chief bears the title of Nawāb, and is entitled to a salute of 11 guns. The present chief is tenth in succession from Sher Khān Bābi, the founder of the family. He holds a *sanad* guaranteeing any succession according to Muhammadan law, and the succession follows the rule of primogeniture. He was created a K.C.S.I. in 1899.

The population at the last four enumerations was: (1872) 380,921, (1881) 387,499, (1891) 484,190, and (1901) 395,428, dwelling in 7 towns and 811 villages. The decrease in the last decade (19 per cent.) was due to the famine of 1899–1900. Distributed according to religion, the population includes 301,773 Hindus, 85,684 Muhammadans, and 7,842 Jains. The capital is JUNĀGARH TOWN. Places of interest include the sacred mountain of GIRNĀR, crowned with Jain temples; the port of VERĀVAL; and the ruined temple of SOMNĀTH.

The soil is generally black, with scattered tracts of the lighter kind. Irrigation is mainly from wells worked with the Persian wheel and the leathern bag. In 1903–4 the area of cultivated land was 859 square miles, of which 108 square miles were irrigated. Four stallions are maintained for horse breeding. Agricultural products comprise cotton, shipped in considerable quantities from the port of Verāval to Bombay, wheat, the ordinary varieties of pulse and millet, oilseeds, and sugar-cane, of both the indigenous and Mauritius varieties. The Gir district contains about 1,200 square miles of good forest. The principal trees are teak, black-wood, *jambu*, and *babūl*, all of which are used for building purposes locally and are a source of revenue to the State. The forest, however, is not able to meet all the demands for building timber of the whole peninsula, as large quantities are imported by sea from the Malabar coast. Stone of good quality is obtainable for building.

The coast-line is well supplied with fair-weather harbours, suited for native craft, the chief being Verāval, Nawābandar, Sutrāpāra, and Māngrol. These ports supply grain, timber, and other necessaries to the greater part of Sorath. The State has its own postal arrangements. The Bhavnagar-Gondal-Junāgarh-Porbandar Railway passes through the territory. The main roads are from Junāgarh town towards Jetpur and Dhorājī, and from Junāgarh to Verāval. The ordinary country tracks serve in the fair season for the passage of carts, pack-bullocks, and horses. Oil and coarse cotton cloth are the principal manufactures.

Junāgarh ranks as a first-class State in Kāthiāwār. The chief has power of life and death over his own people, the trial of British subjects

for capital offences requiring the previous permission of the Agent to the Governor. Though himself paying a tribute of Rs. 65,604 to the Gaikwār of Baroda and to the British Government, the Nawāb of Junāgarh receives contributions called *zortalbi*, amounting to Rs. 92,421, from a large number of chiefs in Kāthiāwār. This levy, which is collected and paid to the Nawāb by British officers of the Kāthiāwār Agency, is a relic of the days of Muhammadan supremacy. The gross revenue in 1903–4 was about 26¼ lakhs, chiefly derived from land (19 lakhs). Junāgarh has a mint issuing coin which is current only in the State. The British rupee is also current. Revenue survey operations are in progress in the State, the total area surveyed up to 1904 being 2,612 square miles. The chief has entered into engagements to prohibit *satī*, and to exempt from duty vessels entering his ports through stress of weather. Of the eighteen municipalities, the largest is Junāgarh, with an income of about Rs. 18,000. The State maintains a military force of 161 men; of these 99 are Imperial Service Lancers, and the remaining 62 are also mounted men. The total strength of the police is 1,760 men, of whom 144 are mounted. There are 9 jails, with a daily average of 51 prisoners in 1903–4. Besides one Arts College attended by 181 students, the State contains one high school, and 124 other schools, with 8,800 pupils. The State maintains 21 medical institutions, including one hospital, which afforded relief to 121,000 persons in 1903–4. There is also a leper asylum containing 61 inmates. In the same year nearly 10,000 persons were vaccinated.

Junāgarh Town.—Capital of the State of the same name in Kāthiāwār, Bombay, situated in 21° 31′ N. and 70° 36′ E., 60 miles south-west of Rājkot. Population (1901), 34,251, including 17,248 Hindus, 15,911 Musalmāns, and 1,029 Jains. Junāgarh, situated under the Girnār and Dātār hills, is one of the most picturesque towns in India, while in antiquity and historical interest it yields to none. The Uparkot or old citadel contains interesting Buddhist caves, and the whole of the ditch and neighbourhood is honeycombed with caves or their remains. The most interesting of these, called Khāprākodia, have the appearance of having been once a monastery two or three storeys in height. Dr. Burgess, in his *Antiquities of Cutch and Kāthiāwār*, has fully described these caves. The ditch is cut entirely out of the rock and forms a strong defence. In the Uparkot are two *vāvs* or wells said to have been built by slave girls of Chudāsama rulers in olden times; a mosque built by Sultān Mahmūd Begara, near the mosque is a cannon 17 feet long, 7½ feet in circumference at the breech, and 9½ inches in diameter at the muzzle; another large cannon in the southern portion of the fort is 13 feet long and has a muzzle 14 inches in diameter. From the times of the Anhilvāda

kings the Uparkot has been many times besieged, and often taken, on which occasions the Rājā was wont to flee to the fort on Girnār, which from its inaccessibility was almost impregnable. Of late years several public buildings have been erected, and the town has been much improved by fine houses built by the nobles of the court. Among the public buildings may be mentioned a fine hospital, the Bahā-ud-dīn Arts College, a library and museum, the Reay Gate with a clock-tower, and a fine high school. A collection of shops called the Māhābat Circle is in front of the Nawāb's palace. Uparkot is the ancient Junāgarh; the present town is more correctly called Mustafābād, and was built by Mahmūd Begara of Gujarāt.

Junāpādar.—Petty State in KATHIĀWĀR, Bombay.

Jungle Mahāls.—A vague term applied in the eighteenth century to the British possessions and semi-independent chiefdoms in Bengal, lying between the regular Districts of Bīrbhūm, Burdwān, and Bānkurā, and the hill country of Chotā Nāgpur. As the administration became more precise, inconvenience arose from the vagueness of the jurisdiction; and by Regulation XVIII of 1805 the Jungle Mahāls were constituted into a distinctly defined District, consisting of 15 *parganas* or *mahāls* from Bīrbhūm District, 3 from Burdwān (including the greater part of Bishnupur), and 5 from Midnapore (including Mānbhūm and Barābhūm). The separate District of the Jungle Mahāls was abolished by Regulation XIII of 1833, and the territory redistributed among the adjoining Districts. The tract is now comprised within Bīrbhūm, the Santāl Parganas, Bānkurā, Midnapore, and the eastern Districts of the Chotā Nāgpur Division, especially Mānbhūm.

Junnar Tāluka.—*Tāluka* of Poona District, Bombay, lying between 18° 59′ and 19° 24′ N. and 73° 38′ and 74° 19′ E., with an area of 591 square miles. It contains one town, JUNNAR (population, 9,675), the head-quarters, and 158 villages, including OTUR (6,302). The population in 1901 was 117,753, compared with 115,762 in 1891. The density, 199 persons per square mile, is above the District average. The demand for land revenue in 1903-4 was 2 lakhs, and for cesses Rs. 14,000. The chief range is that of Harischandragarh. Junnar consists chiefly of the two valleys of the Mina and the Kukdi. A small portion in the west is composed of high hills and rugged valleys. In the east the soil is either black, of variable depth, or a poor gravel. *Bājra* is the staple crop. The climate is dry and healthy, and free from hot winds. The annual rainfall averages 30 inches.

Junnar Town.—Head-quarters of the *tāluka* of the same name in Poona District, Bombay, situated in 19° 12′ N. and 73° 53′ E., 56 miles north of Poona city, and about 16 miles east of the crest of the Western Ghāts. Population (1901), 9,675. The fort of Junnar, often noticed in Marāthā annals, was built by Malik-ut-Tujār in 1436.

In May, 1657, Sivajī surprised and plundered the town, carrying off about 10 lakhs in specie, besides other valuable spoil. About 1½ miles south-west of the town is the hill fort of Shivner, granted in 1599 to the grandfather of Sivajī; the latter is said to have been born here in 1627. During the turbulent times of Marāthā warfare Shivner was often taken and retaken, and once, in 1670, the forces of Sivajī himself were beaten back by its Mughal garrison. Besides fine gates and solid fortifications, it is celebrated for its deep springs. They rise in pools of great depth, supposed to be coeval with the series of Buddhist caves which pierce the lower portion of the scarp. The chief buildings of interest in Junnar are the Jāma Masjid, five hundred years old, a mosque dating from the time of Shāh Jahān, the Afiz Bāgh, and two fine *dargāhs*. The hills surrounding the plain of Junnar are honeycombed with Buddhist caves, many of them of striking interest. Chief of these is a circular cave situated in a hill beyond Shivner. Some bear traces of fine carving, and there are a few inscriptions dating back to the first century of the Christian era. Junnar is supposed to have been a town of great importance in the days of the Western Kshatrapas. (*See* BOMBAY PRESIDENCY, History.) The municipality, which was established in 1861, had an average income during the decade ending 1901 of Rs. 8,800. In 1903–4 the income was Rs. 13,000, chiefly derived from octroi and a tax on houses and lands. Though fallen in size and importance since the time of Muhammadan rule, and by the subsequent transfer of the seat of government to Poona under the Marāthās, Junnar is still a place of considerable note. It is the chief market of the northern part of the District, and a dépôt for the grain and merchandise passing to the Konkan by the Nāna *ghāt*. It has a high school and nine other schools, attended by 824 boys and 152 girls, a dispensary, and a Subordinate Judge's court. It was formerly celebrated for the manufacture of paper, but the low rates at which the European article is now sold have almost driven native paper out of the market. A branch of the Church Missionary Society is stationed here.

Jutogh.—Hill cantonment in Simla District, Punjab, situated in 31° 7′ N. and 77° 7′ E., about a mile from the western extremity of the station of Simla. The land was acquired from Patiāla in 1843. During the summer months one battery of British mountain artillery and two companies of the regiment quartered at Sabāthu are stationed here. Population (March, 1901), 375.

Kabbāldurga.—Fortified conical hill in the Malavalli *tāluk* of Mysore District, Mysore, situated in 12° 30′ N. and 77° 18′ E., 3,507 feet high. The sides are very precipitous, and the summit is accessible only on one side, where some notches are cut in the solid rock. It was a penal settlement for state prisoners under the Hindu and Musal-

mān dynasties. The poisonous water and noxious climate, aided by unwholesome food, soon ended the lives of the victims confined in it. The unfortunate Chāma Rājā and his wife were sent here by the Dalavāyi Devarāj in 1734, and Morāri Rao, the Marāthā chief of Gooty, by Haidar Alī, who gave the place the name of Jāfarābād. In 1864 the guns were destroyed and the guards removed.

Kabbani (also called Kapini or Kapila).—An important tributary of the Cauvery. It rises on the Western Ghāts in North Wynaad, and enters Mysore at the south-west corner of Mysore District. Running north-east with a very winding course through the Heggadadevankote *tāluk* to near Belatūr, it there turns east, and receiving the Nugu and (at Nanjangūd) the Gundal, both from the south, joins the Cauvery at Tirumakūdal Narsipur, the confluence being esteemed a spot of great sanctity. The Kabbani is a fine perennial river, 150 to 200 yards wide, and has a total course of about 150 miles, of which 120 are in Mysore. The Rāmpur channel, 32 miles long, drawn from it, irrigates nearly 1,400 acres.

Kabīrwāla.—Northernmost *tahsīl* of Multān District, Punjab, lying between 30° 5′ and 30° 45′ N. and 71° 35′ and 72° 36′ E., with an area of 1,603 square miles. The population in 1901 was 130,507, compared with 113,412 in 1891. It contains the town of TALAMBA (population, 2,526) and 320 villages, including Kabīrwāla, the head-quarters. The land revenue and cesses in 1903-4 amounted to 5·2 lakhs. The Rāvi runs through the northern portion of the *tahsīl* to its junction with the Chenāb in the north-west corner. The north and west portions are irrigated by the Sidhnai Canal, while the south consists of uncultivated Bār jungle.

Kābul Province.—The central and most important province of Afghānistān, bounded on the north by Afghān-Turkistān, on the east by the district of Jalālābād, and on the south and west by the provinces of Kandahār and Herāt. The general elevation is probably not less than 7,000 feet, while a considerable portion of the province consists of a region of lofty mountains. It is crossed in the north by the Hindu Kush. The Band-i-Bāba and the Paghmān form a great watershed in its centre, dividing the upper reaches of the Kābul, Helmand, and Hari Rūd rivers. The lofty highlands of the Hazārajāt form its south-western districts, and in the south and south-east are the uplands of Ghazni.

The northern districts of the province are Kohistān, Panjshīr, Bāmiān, Saighān, and Nijrao. These are peopled by Kohistānis and Tājiks, while in Bāmiān Hazāras are also numerous. Its western and south-western districts are those of the Hazārajāt, including the country of the Besūd, the Deh Zangi, and the Deh Kundi tribes of Hazāras. In the south and south-east lie Ghazni, Gardesh, Khost, and Logar.

The predominant inhabitants of these districts are Ghilzais and other Afghān tribes, but Hazāras and Tājiks are also to be found.

The winters are extremely rigorous; but the spring, summer, and autumn are, with the exception of July and August, quite European in character.

There are numerous evidences of Persian, Greek, Hindu, Buddhist, and Muhammadan antiquities in the Province. The Surkh Minār, near Kābul city, is no doubt a copy of the capitals of Persepolitan pillars, while Greek influence is evident in the Buddhist monasteries and *stūpas* found along the Kābul valley. The valley is also rich in Graeco-Bactrian coins. In the Koh-i-Dāman, north of Kābul, are the sites of several ancient cities, the greatest of which, called Beghrām, has furnished thousands of coins, and has been supposed to represent Alexander's *Nicaea*. Investigations at Jalālābād during the late Afghān campaign resulted in the recovery of many interesting sculptures in stone, slate, and plaster. Among the most remarkable relics of a bygone age are the colossal figures carved in the cliff at Bāmiān, north of the Koh-i-Bāba, and the adjoining caves. The largest of these figures is 180 feet high. Authorities differ as to their origin, but it seems most probable that they are Buddhist. The surrounding caves answer to the requirements of a Buddhist monastery, and close to the foot of the cliff is a mound resembling a Buddhist *stūpa*, the exploration of which may some day put the question at rest.

For history, trade, and industries see AFGHĀNISTĀN and KĀBUL CITY

Kābul City.—Capital of Afghānistān, situated in 34° 30′ N. and 69° 13′ E., on the right bank of the Kābul river, a short distance above its junction with the Logar, 181 miles from Peshāwar; 5,780 feet above the sea. North of the city, on the left bank of the river, stand the suburbs of Deh-i-Murād Khāni, Andarābai, and Deh i-Afghān; and beyond those is the military cantonment of Sherpur, backed by the Bemāru hill. To the south-east are the Sher Darwāza heights, to the south the Bāla Hissār, and to the east the Siāh Sang ridge. On the west the Kābul river flows through the gorge formed by the Asmai and Sher Darwāza hills. The number of inhabitants is probably nearly 150,000, of whom 100,000 are Kābulis, 3,000 Durrānis, 12,000 Tājiks, 6,500 Kizilbāshis, and 4,000 Hindus. The city is 3½ miles in circumference and is no longer walled, although traces of a wall remain.

Kābul, though by far the richest city in the Amīr's dominions, contains no external or internal evidences of grandeur. The older houses are built of burnt bricks; the more modern ones of sun-dried bricks and mud. Originally there were seven great gates; now only one remains, the Darwāza-i-Lāhauri, on the eastern face. The city is divided into quarters (*muhallas*) and streets (*kūchās*). The principal streets are the

Shor Bāzār and the Chār Chatta: they are badly paved, undrained, and exceedingly dirty. The Shor Bāzār extends from the Bāla Hissār to the Ziārat-i-Bāba Khudi, a distance of about three-quarters of a mile. The Chār Chatta consists of four covered arcades at the western end of the street leading from the Darwāza-i-Lāhauri. It was destroyed by Pollock in 1842, but restored by Amīr Dost Muhammad in 1850. Here are shops tenanted by silk-mercers, jewellers, furriers, cap- and shoemakers, fruiterers, and money-changers, all doing a thriving business. The Kizilbāshis live in the separate walled quarter of Chandaul, by the mouth of the Deh Mozang gorge. A row of fine new shops, called Bāzār-i-Nao, has recently been built on the north side of the river, near the Darwāza-i-Ark.

The climate of Kābul is, on the whole, healthy. The great lake of Wazīrābād beyond the Sherpur cantonment has been drained and is now dry; but the marshes between the Bāla Hissār and Beni Hissār give rise to malaria and fevers. The city itself, wedged in between two hills, with its confined streets, want of drainage, and absence of all sanitary arrangements, would seem to labour under strong disadvantages. Nevertheless, there are compensations in an excellent water-supply, a fine atmosphere, and delightful environs; and the death-rate is probably lower than in most Afghān towns. Provisions are abundant and cheap. In ordinary years, barley sells at 22½ seers per British rupee (about 34 lb. for a shilling), wheat at 18 seers, and flour at 16 seers.

Kābul is believed to be the *Ortospanum* or *Ortospana* of Alexander's march. It was attacked by the Arabs as early as the thirty-fifth year of the Hijra, but it was long before the Muhammadans effected any lasting settlement. Kābul first became a capital when Bābar made himself master of it in 1504, and here he reigned for twenty years before his invasion of Hindustān. It passed on the death of Bābar to his younger son, Kāmrān, who, after several attacks on his brother Humāyūn, was defeated and blinded by him (1553). Humāyūn left it to his infant son, Mirza Hākim, on whose death, in 1585, it passed to the latter's elder brother, Akbar. From this time up to its capture by Nādir Shāh (1738), it was held by the Mughal emperors of India. From Nādir Shāh it passed to Ahmad Shāh Durrāni, whose son, Tīmūr, made it the capital of his kingdom. It continued to be the capital during the Sadozai dynasty, and is so still under the now reigning Bārakzais.

The city played an important part in the first Afghān War. In August, 1839, Shāh Shujā entered Kābul as king, escorted by a British army. Throughout that year and the next, the British troops remained without molestation, but in November, 1841, the citizens and Afghān soldiery broke out in rebellion and murdered Sir Alexander Burnes.

In December Sir William Macnaghten, our special Envoy, was treacherously shot by Akbar Khān, a son of Dost Muhammad, at an interview which had been convened to arrange for the withdrawal of the garrison. On January 6, 1842, the British forces marched out under a solemn guarantee of protection—4,500 fighting men, with 12,000 followers. Their fate is well-known: of all that number, only a single man, Dr. Brydon, reached Jalālābād, and ninety-two prisoners were subsequently recovered. Shāh Shujā was assassinated in April, four months after the withdrawal of the British troops. In September, 1842, General Pollock, with the army of retribution, arrived at Kābul, and took possession of the citadel without opposition. Previous to his departure a month later, the great bazar was destroyed by gunpowder, as a retribution for the murder of Sir William Macnaghten.

Kābul was again occupied by British troops in 1879, when an avenging force under General (now Lord) Roberts was sent to exact punishment for the massacre of the British Resident, Sir Louis Cavagnari, and his party, which took place in September of that year. The city remained in British occupation for nearly a year. During the winter the tribesmen rose in large numbers, and, after heavy fighting for several days, the British troops were compelled to concentrate in the Sherpur cantonment, which remained closely invested by at least 50,000 men. A determined attack was beaten off on December 23, 1879; and, on the following day, an additional brigade having arrived and joined General Roberts, the city again passed into his hands, the tribesmen melting away as suddenly as they had appeared. In August, 1880, the British forces evacuated Kābul and returned to India, on the recognition of Abdur Rahmān Khān as Amīr.

Kābul does not possess many edifices of antiquarian interest. The four principal mosques at the present time are the Masjid-i-Safed, built by Tīmūr Shāh Sadozai; the Masjid-i-Bāla Chaok, by Bābar; the Masjid-i-Pul-i-Khishti, by Shāh Shujā; and the large Jāma Masjid, by the late Amīr. Outside the city are the tombs of Bābar and Tīmūr Shāh. The surroundings of Bābar's tomb have been converted into a garden, beautifully laid out and encircled by a mud wall 30 feet high. It contains a prettily built summer-house. At Indaki, three miles away, overlooking the Chahārdeh valley, is another charming summer residence and garden; and on the slopes of a hill between Shāh Mardān and Wazīrābād is yet another, known as the Bāgh-i-Bāla. All these country residences and several others were built in the reign of the late Amīr, and are not the least among the many improvements which he effected.

The old residence of the Amīrs used to be in the Bāla Hissār, but Abdur Rahmān Khān constructed a new fortified palace for himself, described below. The lower Bāla Hissār has been completely

dismantled; the old Residency, the scene of the deplorable outbreak where the gallant Cavagnari, all his British officers, and most of his escort met their death in September, 1879, has almost entirely disappeared; and in 1893 the only building inside was Sher Alī Khān's palace, a mere shell, on the eastern wall. In the upper Bāla Hissār, just beyond the Residency site, and under the wall of the citadel, an arsenal and extensive storehouses for grain have been constructed.

The new fortified palace (or Ark as it is locally called) is situated in extensive grounds, not less than three-quarters of a mile by half a mile, between Alamganj and Sherpur. It occupied five years in building, and cost about 20 lakhs of rupees. A considerable portion of the grounds is laid out in fruit and flower gardens. There are two gateways, one facing Alamganj and the other looking east towards Siāh Sang. The fortified Ark is surrounded by a moat. It is a massive structure about 350 yards square; the width of the ditch is not less than 60 feet at the top.

The works of improvement carried out at Kābul by Abdur Rahmān Khān were by no means limited to the construction of palaces and summer gardens for his personal gratification. He showed a remarkable interest in the development of numerous branches of industry; and the extensive workshops established by him, under European supervision, are a lasting monument to his name. When one remembers that on Abdur Rahmān's accession, and indeed for nearly ten years later, steam power was unknown throughout Afghānistān, what was accomplished during the second decade of his reign is indeed surprising. On the left bank of the Kābul river, and right in the Deh Mozang gorge, there are now workshops whose out-turn, all circumstances considered, comes up to European standards. The *raison d'être* of these shops is the manufacture of war material, but other handicrafts are also practised. One large shop, for instance, is entirely occupied by men engaged in leather work—boots, saddles, and equipment for the army: another is occupied by steam saw-mills and carpenters; a soap factory turns out 12 tons of soap in a week; candles are manufactured; a mint worked by steam coins 40,000 Kābuli rupees a day; and constant labour is found for skilled workers in silver and brass. In 1893 five steam engines were used in the shops; others are believed to have been imported since. The initiation of this great undertaking was due to the late Amīr, with Sir Salter Pyne as his principal lieutenant. At one time, in 1892, no less than fourteen Europeans were at Kābul in the Amīr's employ, among them a doctor, a geologist, a mining engineer, a gardener, a veterinary surgeon, a tailor, a lapidary, a tanner, and a currier. In 1904 there were only two Europeans at Kābul—a gunsmith and an electrical engineer. About 1,500 men are employed in the shops, the majority being

Kābulis who have learnt their work from English mechanical engineers and Punjābi artisans, and are now thoroughly efficient.

There is no occasion to describe in detail the fortifications of Kābul. Those left by the British forces on their withdrawal in August, 1880, are kept in repair; and the cantonment of Sherpur, which afforded accommodation for most of the British force, is now occupied by the Afghān garrison.

There are five bridges across the river at Kābul, one of which (now broken) was built by the emperor Bābar, and another by Shāh Jahān.

Besides the large trade in local products necessary to meet the requirements of the city population, Kābul is credited in the trade statistics for 1903–4 with imports from India to the value of 50 lakhs of rupees, and with exports aggregating nearly 29 lakhs: that is to say, with more than half the entire trade between Afghānistān and British India. The principal imports are British and Indian cotton twist and yarn, piece-goods, manufactured leather, hardware, indigo, sugar, tea, and spices. The principal exports are fresh and dried fruits, asafoetida and other drugs, and furs.

Kābul has attained an enviable reputation for its practically unlimited supply of fruit. Throughout the Kābul valley orchards extend for miles, and hardly a country house is without its large walled garden. The grape here grows to great perfection, the vines never having suffered from the phylloxera of Southern Europe. All the known European fruits, such as the apple, pear, quince, plum, apricot, peach, cherry, mulberry, are found in abundance; and a variety of melon, known as the *sarda*, which is said to grow only in the Kābul district, is exported to every part of India.

Kābul River.—River of North-Western India, which rises in Afghānistān near the Unai Pass, about 40 miles west of Kābul city, in 34° 21′ N. and 68° 20′ E. In its upper course it is joined by many small tributaries from the southern slopes of the Laghmān range. It is at first an inconsiderable stream, being fordable as far as Kābul city. At a short distance beyond this it receives the Logar from the south, and thenceforward becomes a rapid river with a considerable volume of water. About 40 miles below Kābul city it receives from the north the Panjshīr; 15 miles further on the Tagao; 20 miles below, the united streams of the Alingār and Alishang; and a few miles above Jalālābād, the Surkhāb from the south. Just below Jalālābād it is joined by the Kunar from the north. After these accessions, the Kābul becomes a large river, nowhere fordable. Flowing with great force, it hugs the north side of the Jalālābād valley until it enters the Mohmand Hills, when it presses towards the north base of the Khyber range, and is confined between hills until it enters British territory

near Michni Fort. Here it divides into two branches, the Adezai on the north and the Nagūmān on the south.

The Adezai, or Hājizai, is at present the main stream. It divides the *tahsīls* of Peshāwar and Chārsadda for 20 miles, and, after a further course of 10 miles through the latter *tahsīl*, rejoins the Nagūmān at Nisatta, after receiving the waters of the SWĀT. The Nagūmān, formerly the main stream, throws off the Budhni, a small branch which supplies the Jui Shaikh canal, and after receiving the drainage of the Khyber Hills, turns north and joins the Shāh Alam, itself a chord of the Nagūmān. That stream has a course of 20 miles before it reaches Nisatta, and below that place the joint stream is known as the Landai or 'short' river. The Landai flows between low banks for its first 12 miles, but below Naushahra it has cut a deep channel and its lower reaches are rocky. After a course of 36 miles it falls into the Indus at Attock. Thus the total course of the Kābul river is about 316 miles.

From its source to Jalālābād, the river is of no value except for irrigation, which it also affords in the Frontier Province (*see* KĀBUL RIVER CANAL); from Jalālābād to Dobandi, it affords safe, and generally rapid, descent down stream by means of rafts of inflated skins. This mode of travelling is frequently resorted to, as it saves ten marches which may be traversed in twelve hours when the river is in flood. The boatmen of Lālpura, Jalālābād, and Kunar are a peculiar race, keeping much to themselves, and are known under the generic title of *nilābi*. From Dobandi (or Nisatta) to Attock, the Kābul is navigable for boats of 40 or 50 tons.

Between Kābul city and Jalālābād, the river is fordable in places; but after it has been swelled by the waters of the Logar, the fords are not always practicable; both at Sarobi (opposite Naglu) and at Jalālābād there are alternative fords and ferries. The precarious nature of the Jalālābād ford was illustrated by a catastrophe which occurred in March, 1879, when an officer and forty-six non-commissioned officers and men of the 10th Hussars were drowned while attempting a passage in the dark. The principal ferries between Dobandi and Attock are from Nisatta to Khalīl Bandah, and from New to Old Naushahra. The railway from Naushahra to Dargai crosses the river, and there is a bridge of boats at the same site, while another has recently been constructed at Lālpura below Jalālābād. Permanent bridges cross the river in Kābul city.

Kābul River Canal.—A perennial irrigation work in the Peshāwar District of the North-West Frontier Province. It is a revival of an old Mughal canal, and takes off from the right bank of the Kābul river at the village of Warsak on the border of British territory, about 3 miles up-stream from Michni Fort. The main line is 20 feet in width at the

off-take, and can carry more than 300 cubic feet a second. It crosses the watershed of the country, passing over thirty-six drainage channels of greater or less size, and running close to Peshāwar terminates at the fortieth mile near Naushahra. The distributaries include four branches, with a total length of 19 miles, the largest being the Kuror branch, 9½ miles long. A small private canal is situated near the canal head. The tract commanded is a long narrow strip of irregular width, bounded on the south and west by the canal itself, and on the north and east, for the upper two-thirds of its length, by the low-lying ground irrigated by old proprietary canals, of which the Jui Shaikh is the most important; while for the lower third of its length the Kābul river is the boundary.

The area now commanded exceeds 30,000 acres. It is at present considerably interspersed with that irrigated by the Jui Shaikh and other private canals, as well as by the Bārā river works; but there seems every prospect of the greater portion of all this area ultimately coming under the canal. Irrigation is chiefly for the autumn harvest, and the area of crops actually irrigated during the three years ending 1902 averaged 30,173 acres; in 1903-4 it was 27,800 acres. The canal was opened in 1893, the Kuror branch being added subsequently. The capital cost up to March, 1904, was Rs. 6,45,000, and the net income in 1903-4 was Rs. 90,800, giving a return of nearly 24 per cent. On October 1, 1903, the revenue management of this canal was taken over by the Irrigation department. An extension called the Hazār Khāni branch is now under construction.

Kachch.—State in Bombay. *See* CUTCH.

Kachhi.—Division of the Kalāt State, Baluchistān, lying between 27° 53′ and 29° 35′ N. and 67° 11′ and 68° 28′ E. It consists of a flat triangular plain, 5,310 square miles in area, with its base on the Upper Sind Frontier District of Sind, and is enclosed by the Marri and Bugti hills on the east, and by the Kīrthar and Central Brāhui ranges of the Jhalawān country on the west. On the north-east side of its apex lies the British *tahsīl* of Sibi. The only hills, other than the skirts of the surrounding mountains, consist of the low range called Bannh, separating Dādhar on the north from the Bolān lands on the south. The principal rivers are the NĀRI, the Bolān, the Sukleji, and the MŪLA. Among the hill-torrents are the Dhoriri, formed by the junction of the Sain and Karu from the Jhalawān country, the Lahri, and the Chhatr. On entering Kachhi, all these rivers are dissipated into numberless natural channels, spreading over the great alluvial stretches of which the country is composed.

Physical aspects.

The geological structure of the country is uniform, consisting of a level bed of clay burnt by the rays of the sun and probably of great

depth. The outskirts of the surrounding hills are of the Siwālik formation. Except along the foot of the hills, the general aspect of the country is desolate and bare. The flora is thorny and scant, consisting of a stunted scrub. Among the trees occur *Prosopis spicigera*, *Salvadora oleoides*, *Capparis aphylla*, and two kinds of *Tamarix*. Common plants are *Calotropis procera* and many saltworts, such as *Haloxylon salicornicum*. Wild animals are scarce; a few 'ravine deer' (gazelle) and other small deer occur, and flocks of sand-grouse visit the cultivated areas in winter.

Situated in close proximity to Sind, Kachhi is one of the hottest areas in India. Scorching winds blow in the summer, and at times the deadly simoom (*luk*) prevails. Mosquitoes are so numerous that, at Gājān, a special portion of the crop has been assigned to a saint for his protection against them. From November to February the climatic conditions are pleasant, the air being crisp and cool. The annual rainfall averages about three inches, and usually occurs in July and August.

History.

The history of Kachhi is intimately connected with that of Sind. In the seventh century Rai Chach took its capital Kandābīl, probably Gandāva. To the Arabs the country was known as Nūdha or Būdha, and Kandābīl was despoiled by them on several occasions. It afterwards passed into the hands of the Sūmras and Sammas of Sind. The fifteenth century saw the arrival of the Baloch and the conflicts between their two leaders, Mīr Chākar, the Rind, and Gwahrām Lāshāri. The Arghūns next took possession, and from them the country passed to the Mughals, and on the decline of the latter to the Kalhoras. In 1740 Nādir Shāh handed it over to the Brāhuis in compensation for the death of Mīr Abdullah, the Ahmadzai Khān of Kalāt, at the hands of the Kalhoras in the fierce battle of Jāndrīhar near Sanni. From 1839 to 1842, during the first Afghān War, Kachhi was held and administered by the British on their lines of communication, and was the scene of much raiding and of two fights with the insurgent Brāhuis in 1840. After the war General John Jacob's cavalry was employed in checking the raiding propensities of the Kachhi tribesmen, especially the Jakrānis, who were subsequently removed to Sind. In the time of Mīr Khudādād Khān of Kalāt it was long a scene of anarchy and raiding, and at Bhāg in 1893 this ruler committed the crime in consequence of which he subsequently abdicated.

Buddhist remains have been discovered at Chhalgari and Tambu, and many of the mounds scattered through the country would probably repay excavation.

The number of villages is 606. The population (1901) is 82,909, the majority being Jats. Among important Baloch tribes are the

Rinds, Magassis, and Lāshāris; and among minor tribes, Buledis, Dombkis, Kaheris, and Umrānis. Roughly speaking the Magassis and Rinds occupy the west, and the Dombkis, Kaheris, and Umrānis the east; the Jats are found everywhere as cultivators. A few Brāhuis, such as the Raisānis and Garrāni Bangulzais, have permanently settled in the north of the country, and in the cold season it is visited by many other Brāhuis from the highlands. The occupation of nearly all the people is agriculture. Hindu traders are found in all important villages; the lower castes include potters, sweepers, blacksmiths, and weavers. The most common language is Sindī, but Western Punjābi and Baluchī are also spoken. Except the Hindu traders, all the people are Sunni Musalmāns. A sect called Taib ('penitents') has made some progress since 1890.

Population.

It is usual to speak of Kachhi as a desert, but this is a mistake. The soil is extremely fertile wherever it can be irrigated. Its quality depends on the admixture of sand. The best is a light loam mixed with a moderate proportion of sand (*matt*). Except a fringe of 'wet-crop' area on the west, most of the land entirely depends for cultivation on floods brought down by the rivers from the surrounding hills, the water of which is raised to the surface by a system of large dams constructed in the beds of the rivers by the co-operation of the cultivators. A description of this interesting system is given in the paragraphs on Agriculture in the article on BALUCHISTĀN. The floods generally occur in July and August, but occasionally also in spring. Three crops are harvested during the year: *sānwanri*, *sarav*, and *arhāri*. The first is the principal crop, and is sown in July and August and reaped in the autumn. It consists of *jowār*, with a little *mūng*, *moth*, and *bājra*. The second, or spring crop, comprises wheat, barley, mustard, and rape; the third, *jowār* for fodder, cotton, and water-melons. Kachhi *jowār* is renowned for its excellence, and is usually cultivated on a soil known as *khauri*. Indigo is grown in Dādhar. The cultivation of the *sarav* crop is uncertain, depending on late floods in August. Dādhar, Sanni, Shorān, Gājān, Kunāra, part of Gandāva, and Jhal are the only places where irrigation from permanent sources exists.

Agriculture.

Bullocks from Nāri in Kachhi are famous for their shape and strength, and many are purchased by dealers from the Punjab. Camels are bred in some numbers. The breed of horses is excellent. Branded mares number 604, and one stallion was located in the country in April, 1904. The best breeders are the Magassis, Dombkis, and Rinds. The indigenous sheep do not possess fat tails, but many of the fat-tailed variety, known as Khorāsāni, are brought from the highlands in winter. Of goats, the *barbari* breed is most prized.

No 'reserved' forests exist, but protective measures are adopted by

the tribal chiefs. The western side of the country contains some well-wooded tracts. A sulphur mine at Sanni was worked in pre-British days by the Amīrs of Afghānistān. Ferrous sulphate (*zāgh*) is found in the mountains near Kotra and Sanni. Earth-salt is manufactured by the lixiviation of salt-bearing earth at Gājān and Shorān. Saltpetre is produced in small quantities, and the manufacture of carbonate of soda (*khar*) from the numerous saltworts is increasing.

Trade and communications.

The principal industry is the weaving of coarse cotton cloth. Double coloured cotton sheets (*khes*) of good quality are produced here and there, while at Lahri and a few other places a fine kind of embroidered leather-work is manufactured. Country rifles, swords, and saddles are made at Bhāg and Dādhar.

Most of the trading class come from Shikārpur in Sind. The centres of trade are Dādhar, Lahri, Hāji, Bhāg, Shorān, Gājān, Kotra, Gandāva, and Jhal. Piece-goods, rice, sugar, and country carts are imported from Sind; dates, *ghī*, wool, and medicinal drugs from the highlands for re-export. Exports to the highlands include cotton cloth, mustard oil, salt, and silk; the articles supplied to Sind consist chiefly of carbonate of soda, grain, and oilseeds. The North-Western Railway passes through the centre of Kachhi. No metalled roads have been made, but the country is easily traversed in all directions except after heavy floods.

The principal routes run from Jacobābād to Sibi via Lahri on the east; through Shorī and Bhāg in the centre; and via Gandāva and Shorān to Dādhar on the west. The route through the Mūla Pass from the Jhalawān country debouches at Gandāva.

Famine.

The insignificant rainfall, the dependence of the country on flood irrigation, and the absence of proper means of distributing the flood-water render Kachhi extremely liable to scarcity and even to famine. Under existing conditions enormous quantities of water run to waste in the Nāri in ordinary years, and the introduction of a good irrigation and distribution scheme would doubtless afford a large measure of protection. The proximity of Sind and the free migratory habits of the population have hitherto prevented the necessity of actual famine relief. Advances amounting to about Rs. 29,000 were made to the Khān of Kalāt's cultivators in 1900, when the drought, which had begun in 1897, culminated. They were recovered at the succeeding harvests.

Administration.

For purposes of administration, Kachhi is divided into two parts: areas subject to the jurisdiction of the Khān of Kalāt, and areas under tribal chiefs. Within the areas subject to the Khān, however, tribal units are to be found which occupy a position of practical independence. The political control of the

country east of the railway, i.e. the whole of the Lahri *niābat*, is vested in the Political Agent of Sibi District, and of the remainder in the Political Agent, Kalāt. The area under the Kalāt State is divided into five *niābats*: Dādhar; Bhāg; Lahri, which includes the area occupied by the Dombki, Kaheri, and Umrāni tribes; Gandāva; and Nasīrābād. The head-quarters station of each *niābat* is located at a village of the same name, except Nasīrābād, of which the head-quarters are situated at Mīrpur Bībīwāri. Dādhar, Bhāg combined with Lahri, and Gandāva with Nasīrābād each forms the charge of a *mustaufi*, who is generally assisted by local officials known as *naib* and *jā-nashīn*. Dādhar, however, possesses neither a *naib* nor a *jā-nashīn*, and Gandāva has no *jā-nashīn*. The principal areas subject to tribal control are Jhal, inhabited by the Magassis; and Shorān, held by the Rinds. In Lahri, the Dombkis, Kaheris, and Umrānis have acquired a large measure of independence. In the *niābats*, criminal, civil, and revenue cases are decided by the local officials; in tribal areas, petty cases are dealt with by the chief, and important or intertribal cases are referred to *jirgas* or local *kāzīs*, who exercise much influence, under the orders of the Political Agents. In the numerous *jāgīrs* within the Khān's *niābats*, jurisdiction in all petty matters is exercised by the *jāgīrdārs*. The most common offences are cattle-lifting and theft. Cattle are frequently stolen from Sind and sent to the Jhalawān country. Much use is made of trackers in the detection of such crimes, and some of these men are very skilful. They are paid by results.

The land revenue system presents an interesting survival of ancient native methods. The Khān collects revenue in his *niābats*, and elsewhere it is taken by tribal chiefs and *jāgīrdārs*. It consists everywhere of a fixed share of the gross produce, varying from one-third to one tenth, but generally one-third or one-fifth. The additional cesses (*rasūm*), however, raise the amount paid to one-half. Irrigated lands sometimes pay a fixed cash assessment (*kalang*). Large *jāgīrs*, originally granted for feudal service, are held by the Sarawān tribesmen in Bālā Nāri and the Bolān lands, and by the Jhalawān tribes round Gandāva and at Chhatr-Phuleji. The Dombki headman holds one in Lahri. Generally the proprietary right in all areas is held by the local cultivating class, but in the Baloch areas of Jhal and Shorān it has been transferred in many cases to the chiefs.

Besides the land revenue, contracts are given in the *niābats* for octroi, excise, and the collection of other minor taxes, the proceeds being included in the total revenue. The amount of land revenue proper varies with the extent and time of the floods in the rivers. Thus, in 1902 the Khān's aggregate revenue from all his *niābats* amounted to about 1 lakh, and in 1903 to more than 2½ lakhs; but in the latter year a new system of administration had been introduced.

The details of the latter sum are as follows: Dādhar, Rs. 49,200; Bhāg, Rs. 32,500; Lahri, Rs. 58,100; Gandāva, Rs. 55,400; Nasīrābād, Rs. 56,600.

Tribal levies, paid by the British Government and numbering 50, are stationed at Dandor in Bālā Nāri, Lahri, Phuleji, and along the railway. Detachments, consisting of 85 of the Khān's infantry and 12 artillerymen, are located at Dādhar, Nasīrābād, and Bhāg; but their numbers vary from time to time. The number of the Khān's irregular levies is generally 91. A tribal *thāna* of five men is posted at Gandāva. Security is provided by the enlistment of *kotwāls*, who are paid either by the inhabitants or from the Khān's revenues. Tribal chiefs maintain retainers and dependants, who are employed on revenue duties and in securing the general peace. The same system is followed in the Khān's *niābats* by the local *naibs*, who distribute their friends and followers throughout the country at the expense of the cultivators. The Rind and Magassi chiefs receive allowances from the Khān of Kalāt of Rs. 300 a month each. A jail is now in course of erection at Dādhar; criminals have hitherto generally been kept in the stocks. The country has no schools or dispensaries. Inoculation takes the place of vaccination, being performed by Saiyids, Pīrs, Shehs (the local name for Shaikhs), and Abābakis from the highlands.

Kāchhi Baroda.—*Thakurāt* in BHOPĀWAR AGENCY, Central India.

Kachins.—A community of Tibeto-Burman origin, inhabiting the north and north-east of Upper Burma and the Shan States. After the Shans and the Chins, the Kachins, known also as Chingpaws or Theinbaws, are the most numerous non-Burman people in the Upper Province. In 1901, 64,405 persons were returned as Kachins, but this includes only the population dealt with in the regularly enumerated areas. In what were known as the 'estimated' areas no race data were collected; but it is certain that at least three-eighths of the 127,011 persons inhabiting these areas were Kachins, and it will be safe to put the total of the race at nearly 120,000. About one-half of the population of Myitkyinā District is Kachin; and Kachins form a substantial portion of the inhabitants of Bhamo, Kathā, and the Ruby Mines, and of the Northern Shan States. Of the same primaeval stock as the Burmans and the Tibetans, the Kachins seem to have remained for centuries in possession of the uplands about and to the north of the head-waters of the western branch of the Irrawaddy, and it is only within the last few decades that they have encroached on their neighbours in the south. Of recent years, however, observers have had an opportunity of witnessing in the Kachins what in all probability will be the last of those immigration waves from the north that have played so important a part in the history of the Indo-Chinese Peninsula. The Kachin tribes have penetrated westwards into Assam, where they are

known as Singphos, and as far down the valley of the Irrawaddy as Kathā District; but here they appear for the time being to have been brought to a halt by contact with a comparatively dense population. Though checked in one direction, the southward movement still continues. The line of least resistance has now shifted to the east: the borders of the Northern Shan States, till recently inhabited only by Shans and Palaungs, have been gradually overrun; and in the direction of China the Kachins have worked their way as far south as the trans-Salween State of Kengtung. The next few years will probably see a further extension of the race in a southerly direction. The Kachins have given considerable trouble on the frontier in the past, and more than one punitive expedition has had to be sent against them.

Strictly speaking, Chingpaw is the name given only to the southern section of the Kachin race, the communities farther north being known generally as Khakus. The social system of the Kachins is tribal, but nothing approaching to tribal federation is known. The five principal tribes are the Marips, the Lepais, the Lahtawngs, the 'Nkhums, and the Marans. Subdivisions, clans, and families abound. About one hundred family names have been recorded, and persons bearing the same family name do not intermarry. The Kachins are practically all spirit-worshippers, and their *nats* are extremely numerous and, for the most part, malignant. The Kachin places himself *en rapport* with the spirit world through the offices of a medium (*mi-twe*) or a professional priest (*tumsa*). Divination is frequently resorted to by this very superstitious race. The dead are disposed of by burial. *Taungya* (shifting cultivation) is the usual form of agriculture practised in the Kachin country, rice being the main crop. The Kachin house is ordinarily far larger than a Burmese or Shan dwelling, and has many points of resemblance to the lengthy structure seen in some Palaung villages. Slavery still exists among the Kachins, but only to the modified extent in which it survives among the Chins of the Chin Hills. The Kachin physical type varies considerably. Though the physiognomy is Mongolian and often of a character far from attractive to Europeans, aquiline noses are not unknown and regular features are occasionally met with. The figure is short but wiry. There is nothing very distinctive about the dress of the Kachin men. They wear as a rule a dark jacket, a waistcloth (frequently of a plaid pattern) or Shan trousers according to their habitat, and a turban varying from locality to locality. The women ordinarily wear a jacket, sometimes long with long sleeves, sometimes short and practically sleeveless, as well as a skirt and turban, which, in the case of Chingpaw women, is often of considerable size. Wherever the means of the wearer allow it, silver torques are worn by the Chingpaw women. The Kachins speak a language belonging to the same linguistic sub-family as

Burmese, and resembling the latter closely in grammatical structure. It has various dialects, but they do not differ materially from one another. The Marus, the Szis, and the Lashis, hill tribes of the north-eastern frontier, have been looked upon as Kachins, whom they resemble somewhat in manners and dress. It appears, however, probable from their language that these tribes are more nearly connected with the Burmans than with the Kachins. Their original home was probably to the east of that of the Kachins.

Kāchola.—An estate in the north-east of the State of Udaipur, Rājputāna, held by the Rājā Dhirāj of SHĀHPURA as a grant from the Mahārānā, on payment of a tribute of about Rs. 2,400 and the performance of service. The nature of the service to be performed has long been in dispute: but it has recently been decided that the Rājā Dhirāj is to send his usual quota of troops for three months every year to Udaipur, and is himself to attend for one month at the same place every alternate year, generally at the Dasahra festival. The estate consists of 90 villages with (1901) 12,515 inhabitants, the majority of whom are Jāts, Gūjars, Rājputs, and Brāhmans. The head-quarters are at the small town of Kāchola, situated in 25° 24′ N. and 75° 8′ E., 3 miles east of the Banās river, about 100 miles north-east of Udaipur city and 20 miles south-east of the town of Shāhpura.

Kachuā.—Village in the Bāgherhāt subdivision of Khulnā District, Bengal, situated in 22° 39′ N. and 89° 53′ E., at the junction of the Bhairab and Madhumatī rivers. Population (1901), 247. Kachuā is one of three market-places established by Mr. Henckell in the Sundarbans in 1782–3; the other two, Chāndkhāli and Henckellganj, are now of no importance, but Kachuā still has a large bazar. The principal export is rice; large quantities of *kachu*, a kind of yam, are also grown, from which the village possibly derives its name.

Kadaiyanallūr.—Town in the Tenkāsi *tāluk*, Tinnevelly District, Madras, situated in 9° 4′ N. and 77° 20′ E. The population in 1901 was 13,939, weavers forming a large proportion. Local affairs are managed by a Union *panchāyat*.

Kadāna.—Petty State in REWĀ KĀNTHA, Bombay.

Kadapa.—District, subdivision, *tāluk*, and town in Madras. *See* CUDDAPAH.

Kadaura.—Chief town of the Baonī State, Central India, situated in 26° N. and 79° 50′ E., 15 miles from Kālpī station on the Jhānsi-Cawnpore section of the Great Indian Peninsula Railway. It became the head-quarters about 1820, before which date the chiefs lived at Kālpī. Population (1901), 3,004.

Kadi Prānt.—A *prānt* or district in Baroda State, situated in Northern Gujarāt, between 23° and 24° 9′ N. and 71° 15′ and 71° 50′ E., with an area of 3,015 square miles. It is the largest and most pro-

ductive of the four *prānts* into which the Gaikwār's territory is divided. It is bounded on the north by the States of Pālanpur and Rādhanpur; on the west by Rādhanpur State and Ahmadābād District; on the south by Ahmadābād and Kaira; and on the east by the Mahī Kāntha States. Most of the *prānt* lies west of the Sābarmatī, and consists of a dreary looking plain, with few trees except near village sites. Some scattered portions east of the river are well wooded, and contain a few small but picturesque hillocks. The chief rivers are the Sābarmatī, the Saraswatī, and the Banās.

The greater part of the area is under cultivation, the fields being often surrounded by hedges composed of species like *Capparis grandis*, *C. sepiaria*, *Jatropha Curcas*, *Euphorbia antiquorum*, with various *Leguminosae*, *Menispermaceae*, *Asclepiadeae*, and *Convolvulaceae* among the climbers. On waste ground such species as *Calotropis gigantea*, *Jatropha gossypifolia*, *Fagonia arabica*, *Echinops echinatus*, and *Tephrosia purpurea* are found. Field-weeds include *Celsia coromandeliana*, *Sphaeranthes indicus*, *Launaea nudicaulis*, *Coldenia procumbens*, and *Blumea eriantha*. Damp ground and stream beds contain *Aeluropus villosus*, *Herpestis Monnieria*, *Mollugo hirta*, *Cyperus laevigatus*, *Scirpus subulatus*, *Hydrilla verticillata*, and *Potamogeton pectinatus*. The planted or semi-spontaneous species near habitations include the mango, tamarind, teak, custard-apple, pomegranate, *bael*, and various species of *Ficus*. such as banyan and *pīpal*.

Kadi is considered to be the healthiest part of the State, the *tālukas* of Dehgām, Vijāpur, Visnagar, and Pātan being favourably known for the comparative absence of malaria.

The population was estimated at 850,325 in 1872. At the three following enumerations it was: (1881) 988,487, (1891) 1,098,742, and (1901) 834,714. The *prānt* suffered severely in the famine of 1899-1900. It is divided into ten *tālukas* or *mahāls*, and two *petas* or sub-*mahāls*, statistics of which in 1901 are given in the table on the next page.

The chief towns are PĀTAN, VISNAGAR, SIDHPUR, VADNAGAR, KADI, UNJHĀ, MEHSĀNA (the head-quarters), VIJĀPUR, CHĀNASMA, KHERĀLU, LĀDOL, KĀLOL, VALĀM, and UMTA. About 98 per cent. of the population speak Gujarātī. In 1901 only 8 native Christians were enumerated in the *prānt*, but the American Methodist Episcopal Mission claims 250 adherents in eight villages, and provides five day schools.

About 90 per cent. of the total area is composed of light sandy soil, which is very productive if manured and irrigated. Black soil is found in patches. Irrigation is chiefly supplied by wells, including large temporary wells which are used for a single season. The principal crops are *bājra*, *jowār*, wheat, *banti*, *dangar*, barley, *vari*, *kadra*, *chenna*, *kuri*, *bāvto*, *chasatio*, *kāng*, *math*, *mag*, *udid*, *guvār*, *tuver*, *cholu*, *chana*,

val, *kulthi*, *sarsav*, *erandi*, poppy, *tal*, *kasumbo*, tobacco, sugar-cane, cotton, *bhendi*, chillies, *sakaria*, and other garden products. Poppy is of great importance and covered 12,262 acres in 1904–5, yielding on an average 12 lb. of crude opium per acre.

Tāluka.	Area in square miles.	Number of Towns.	Number of Villages.	Population.	Population per square mile.	Percentage of variation in population between 1891 and 1901.	Number of persons able to read and write.
Kadi	331	1	118	71,784	217	− 25·8	4,342
Kālol	267	1	88	80,532	302	− 17·1	5,038
Vijāpur	346	2	107	117,286	339	− 24·9	5,301
Mehsāna	195	1	83	75,254	386	− 10·2	4,314
Visnagar	[illegible]	2	54	70,989	471	− 2[illegible]·7	5,319
Vadāvli	332	2	113	67,302	203	− 33·7	2,839
Pātan	409	2	140	104,136	255	− 23·5	7,605
Sidhpur	254	2	78	97,161	355	− 16·1	5,584
Kherālu	246	3	88	76,463	311	− 22·5	4,408
Hārij	154	...	43	12,505	81	− 57·1	346
Dehgām	239	1	95	49,461	207	− 28·6	2,865
Atarsumba	70	1	56	18,871	270	− 37·9	1,276
Total	3,015	18	1,063	834,744	277	− 24·0	49,237

The spinning of cotton thread and silk and cotton-weaving are the chief industries. There may also be mentioned: embroidery on a small scale; the manufacture of ornaments in gold, silver, and ivory, and of betel-nut cutters, knives, brass and copper utensils, toys, and pottery. The number of ginning factories is six, one being connected with a weaving-mill. The chief centres of trade are Pātan, Kadi, Mehsāna, Visnagar, Vadnagar, and Sidhpur, the first being the most important. All these towns are connected by railway lines, by which the *prānt* is exceptionally well served. In addition to the main line of the Rājputāna-Mālwā Railway, which passes from south to north, State lines diverge from Mehsāna to Kherālu, Pātan, and Viramgām, and from Kālol to Kadi and Vijāpur. The Ahmadābād-Parāntīj line also serves some places. Other lines are projected from Manund Road to Chānasma, from Visnagar to Vijāpur, and from Kherālu to Dabhoda.

The land revenue rose from 32·2 lakhs in 1881 to 35·8 lakhs in 1891, and was 35·5 lakhs in 1901; but in 1904–5, while the demand was 22 lakhs, the collections amounted to only 11·2 lakhs. A settlement for fifteen years was made between 1891 and 1900, and parts of the *prānt* are now being resettled. The *prānt* contains 36 *mehwāsi* villages, which were formerly assessed on the cultivated area only, but a settlement has now been made on the ordinary lines at greatly reduced rates. The average assessment varies in different *tālukas* from

Rs. 1-3-0 to Rs. 2-8-0 per *bīgha* (⅘ acre) for 'dry' land, and from Rs. 1-9-0 to Rs. 2-11-0 for 'wet' land.

The *prānt* contains twelve municipalities, three of which are administered by boards reconstituted in 1905 on a partly elective basis. These latter—Pātan, Sidhpur, and Visnagar—have a total income of Rs. 21,500 from customs, excise, and tolls, besides grants of Rs. 7,000; and the remaining nine receive grants of Rs. 20,500. A District board and local boards were constituted in 1905.

The administration is carried on by the *Sūbah*, while the court of the *prānt* Judge is at Visnagar. Education is well provided for, as the *prānt* has one high school (at Pātan), 6 Anglo-vernacular schools, and 369 vernacular schools, the total number of pupils in 1904–5 being 25,316. Two civil hospitals and eleven dispensaries treated 86,329 patients in 1904–5, of whom 359 were in-patients.

Kadi Tāluka.—South-western *tāluka* of the Kadi *prānt*, Baroda State, with an area of 331 square miles. The population fell from 96,782 in 1891 to 71,784 in 1901. The *taluka* contains one town, KADI (population, 13,070), the head-quarters of the *tāluk*, and of the *prānt* until 1904; and 118 villages. The general aspect of the *tāluka* is very unprepossessing, as it consists for the most part of an uninterrupted plain bare of all trees. Round the town of Kadi, however, and in its neighbourhood there are trees in fair abundance, a gentle undulating country, and numerous tanks. The soil for the most part is light and sandy. In 1904–5 the land revenue was Rs. 2,58,000.

Kadi Town.—Head-quarters of the *tāluka* of the same name, Baroda State, situated in 23° 18′ N. and 72° 2′ E., on the Gaikwār's State line from Kālol on the Rājputāna-Mālwā Railway. Population (1901), 13,070. It is a place of some importance in the State, owing to its connexion with Malhār Rao, who held it as *jāgīrdār* and rebelled against the Gaikwār Govind Rao. Till 1904 it was the head-quarters of the Kadi *prānt*. The town seen from a distance presents rather a picturesque appearance, the domes of the fort gleaming from the thick wood which surrounds it. To the north lies a broad sheet of water fringed with trees, and on the edge which touches the houses the domed gate or Gumit Darwāza is effectively placed. The fort itself stands on a slight elevation; and its brick walls and numerous buttresses, though they enclose no great area, are of enormous thickness and in a good state of preservation. The chief buildings inside the fort are the Rang and Supra Mahals, while behind it is the palace or *sarkārvāda*, which was formerly occupied by the *Sūbah's* and other offices. In addition, the town possesses a civil hospital, courts, jail, Anglo-vernacular and vernacular schools, and various *dharmsālas* and temples. Its narrow streets contain gaudily painted houses, lavishly decorated with woodcarving, but the choking dust and the crumbled appearance of the

generality of the habitations give Kadi a mournful look. The State makes an annual grant of Rs. 2,700 to the municipality. Several fairs are held during the year, but the trade of the town is not very great. The chief industries are weaving, calico-printing, and the manufacture of brass and copper utensils. The cantonment is at present garrisoned by a detachment of State troops.

Kādīpur.—Eastern *tahsīl* of Sultānpur District, United Provinces, comprising the *parganas* of Aldemau and Chāndā, and lying between 25° 59′ and 26° 23′ N. and 82° 6′ and 82° 41′ E., with an area of 442 square miles. Population fell from 274,458 in 1891 to 265,450 in 1901, the rate of decrease being the highest in the District. There are 741 villages, but no town. The demand for land revenue in 1903–4 was Rs. 3,69,000, and for cesses Rs. 59,000. The density of population, 601 persons per square mile, is below the District average. The *tahsīl* is crossed by the Gumtī, and contains a large area of low-lying, badly drained ground. It thus suffers considerably in wet years, such as 1894. In 1903–4 the area under cultivation was 263 square miles, of which 151 were irrigated. Wells and tanks or *jhīls* are of almost equal importance as a source of supply in ordinary years.

Kādirābād.—Walled town in the Jālna *tāluk* of Aurangābād District, Hyderābād State, situated in 19° 51′ N. and 75° 55′ E., on the left bank of the Kundlika, opposite the town of Jālna. Population (1901), 11,159. It is an important centre of the grain and cotton trade, and contains a weekly bazar for grain and cattle. There are three ginning and two pressing mills, employing 470 hands. Post and customs offices are located here.

Kadiri Tāluk.—Western *tāluk* of Cuddapah District, Madras, lying between 13° 47′ and 14° 31′ N. and 77° 51′ and 78° 28′ E., with an area of 1,158 square miles. It is very irregular in shape, its extreme length being 45 miles, and its maximum breadth 35 miles. The population in 1901 was 145,503, compared with 134,915 in 1891, the increase during the decade being greater than in any other *tāluk* of the District. The density was 126 persons per square mile, compared with the District average of 148. It contains one town, KADIRI (population, 10,493), the head-quarters, and 139 villages. The demand for land revenue and cesses in 1903–4 amounted to Rs. 2,07,000. The *tāluk* is very stony and barren, and is cut up by detached rocky hills which are usually destitute of vegetation. During the hot season the ryots entirely depend for water on wells, the rivers and almost all the tanks being quite dry. These wells are constructed at great cost and with considerable labour, the ground below the thin surface soil being often solid rock. The Maduleru, one of the feeders of the Chitrāvati, rises in the *tāluk*, and the Pāpaghni passes through its southern and south-eastern portions, but they are of little use for irrigation. The soil is very poor, being

chiefly coarse red earth mixed with disintegrated granite, which is often impregnated with soda and other salts. Black cotton soil is, however, met with in patches here and there. The chief products are horse-gram, *cholam*, sugar-cane, and cotton. A good deal of jaggery (coarse sugar) is produced. Hematite occurs in small quantities and used to be smelted by the primitive native processes.

Kadiri Town.—Head-quarters of the *tāluk* of the same name in Cuddapah District, Madras, situated in 14° 6′ N. and 78° 10′ E. Population (1901), 10,493. A large temple here (one of the most famous in the District) is dedicated to Narasimha, to whose festival many pilgrims resort in the early part of the year. It is said that an image of Narasimha was found in an ant hill under a *chendra* tree, but the same story is told of other places. The name of this tree in Sanskrit is *khadri*; and tradition states that when the jungle was cleared by Ranga Nāyudu, a local chieftain of Patnam, and the temple was built, this name was given to the town which arose round the shrine. It was for a long time the practice to let loose a tiger or leopard at the festival here in January and shoot at it, but one year a bystander was shot instead, and the custom was prohibited by the Collector. Two days after the car-procession, Paraiyans and other low-caste people—contrary to all precedent—are allowed to enter the temple. They bathe in the river close by and pass into the building in great crowds, carrying small bundles containing coin and jewels wrapped up in cloths, which they present to the god. These bundles are received by a person employed by contractors who farm the privilege.

Kadiri shows signs of having at one time been a Musalmān town. Though the existing buildings bear no trace of Muhammadan architecture, for two miles round there is a large number of tombs and mosques, mostly decayed but some still well preserved. The place was formerly the seat of a local chieftain. When Munro took over the country he sent for the chief to settle with him the amount of revenue he was to pay. The man refused to come, so a detachment was sent against him. They surprised the fortified temple in which he had taken post, but he escaped in the confusion. His possessions were, however, confiscated. Since the town became a station on the South Indian Railway, it has increased in importance as a trade centre. A brisk business in grain is transacted. There is a branch of the London Missionary Society.

Kadod.—Place of Hindu pilgrimage in the Broach *tāluka* of Broach District, Bombay, situated in 21° 44′ N. and 73° 8′ E., on the right bank of the Narbadā, about half-way between the city of Broach and Suklatīrtha. The site of the fair is a very small hamlet with only twelve houses and a population (1901) of 53. The ceremonies, which occur once in every nineteen years when Vaishākh (April-May) happens to be

the intercalary month, are in honour of Mahādeo, under the name of Koteshwar or Kotilingeshwar, and last for a whole month. Mr. Williams in his Memoir on Broach mentions that one of the periodical gatherings took place in 1812. In that year the total number of visitors was estimated at 200,000, and the most perfect order and good conduct are said to have been maintained by the crowd. In 1869 people began to collect on April 13, and all was not over till May 11; the greatest attendance at any one time was estimated at 100,000, and the total throughout the whole month at 500,000. The last fair was held in 1888, when the bed of the river was crowded with *lingams*, which the people in many cases carried away to their homes. During the time of the fair the pilgrims live in sheds and temporary huts. The Narbadā flows close by the site of the fair; but as the gathering takes place in the hot season, and below the limit of the tide, fresh water is hard to obtain. There is a temple at Kadod consisting of one chamber about 11 feet square, and entered by a door 5 feet 2 inches high and 3 feet 3 inches wide.

Kadoli.—Petty State in MAHĪ KĀNTHA, Bombay.

Kadūr District.—District in the west of the State of Mysore, lying between 12° 55′ and 13° 54′ N. and 75° 5′ and 76° 22′ E., with an area of 2,813 square miles. It is bounded on the north by Shimoga District; on the east by Chitaldroog and Tumkūr Districts; on the south by Hassan District; and on the west by the South Kanara District of Madras.

Physical aspects.

The main part of the District is composed of the most mountainous region within the limits of Mysore. Bordered on the west by the mighty Ghāt range, rising at this part into some of the loftiest peaks between the Himālayas and the Nilgiris; supporting on its centre the stupendous barrier of the Bābā Budan chain, of even superior elevation; between these towering masses covered with a complete network of lofty hills whose altitude at certain points, as in the grand Merti peak of Kalasa, renders them conspicuous landmarks even in this region of heights, while ranges of more modest pretensions extend throughout the north and east—this District, with a slight exception eastwards, may truly be described as pre-eminently the Malnād or 'highland country.' Nor are these mountain tracts wanting in those charms of wood and water which tend to soften the harsher features of so rugged a landscape. For though the summits rear themselves bareheaded into space, the slopes are thickly clad with primaeval forest, through which the shining streams thread their often headlong way, fertilizing the narrow valleys and open glades, till their waters descend to the level of the larger rivers, flowing in steep and sunken channels, whence issue dense mists that cover the face of the country, only lifting as the heat of the morning sun increases

in power. In these vast solitudes the habitations of man are few and far between. A single homestead, hidden amid the luxuriance of tropical vegetation, is often the only sign of human presence for many miles around. Roads there used to be none. All the valuable produce of the country was, and to a great extent still is, transported on the backs of cattle, the rallying sounds from the belled leaders of the drove resounding far and wide. The eastern or Maidān *tāluks* partake of the general features of that description of country in the other Districts, the transition from Malnād to Maidān being very abrupt and striking on approaching Lakvalli from the west.

The congeries of mountains, so far as they can be reduced to a system, seem to range themselves into a central ridge running north and south, with a great loop or circle on either hand; while at the south-western angle the Western Ghāts make a bend inwards to the east, marking the initial point of the line which divides the northern from the southern waters of Mysore. The main ridge spoken of above commences at Ballālrāyandurga, and passing east of Mertigudda and Koppadurga, separates the basin of the Bhadra from that of the Tunga, and runs up towards Mandagadde, connecting with the central range of Shimoga District. On the west of this ridge is the valley in which Sringeri stands, enclosed with a girdle of mountains; while to the east of it, beyond the right bank of the Bhadra, is the Jāgar valley, completely environed with the Bābā Budan Mountains. The highest point in the District, and in Mysore, is Mulainagiri in the Bābā Budans, which rises to 6,317 feet above the sea. In the same group, Bābā-Budan-giri is 6,214 feet, and Kalhattigiri 6,155. The loftiest peak in the Western Ghāts is the Kudremukh or 'horse-face' mountain, so called on account of its appearance from the sea, to which it presents a landmark well-known to navigators on the west coast. Its height is 6,215 feet. Of other conspicuous points, the grand Ballālrāyandurga is 4,940 feet, Gangāmula in the Varāhaparvata 4,781, Woddingudda 5,006, Lakkeparvata 4,662. The superb hill of Kalasa, called the Mertigudda, situated in the heart of the mountain region to the west, is 5,451 feet. Kanchinkaldurga is 4,081 feet, and Sakunagiri 4,653.

The principal rivers are the twin streams, the Tunga and Bhadra. They both rise at Gangāmūla in the Varāhaparvata in the Western Ghāts. The Tunga flows north-east past Sringeri, and then turns north-by-west to Shimoga District. The Bhadra runs east past Kalasa, and then with a north-easterly course across the western opening of the Bābā Budan horseshoe, receives the Somavāhini from the Jāgar valley on the east, and passes on to Shimoga District. On the east of the Bābā Budans the Gaurihalla and Avati are twin streams, rising near Mulainagiri. The first expands into the Ayyankere Lake near Sakkarepatna, and taking the name of Veda runs north-east to Kadūr.

The other, the northern stream, forms the large Madaga tank ; and the two, uniting near Kadūr town, continue under the name of Vedāvati into Chitaldroog District.

The Shimoga schistose band extends to the southern boundary of the District, and spreads from near Kadūr town to the edge of the Western Ghāts, where it forms much of the high Ghāt country culminating in the Kudremukh. From this point the western boundary is probably continuous up to Anantapur (Shimoga District). At Kudremukh the schistose beds are nearly horizontal, with a slight dip to the north; the scarp on the southern side of the mountain, descending to South Kanara, displays a series of Dhārwār rocks about 5,000 feet in thickness, composed largely of trap flows, with some beds of micaceous and other schists, and resting unconformably on the denuded surface of the Archaean rocks below. On the eastern side of the band, near Ajjampur, the rocks dip generally to the east. To the south and west of Tarikere large masses of chloritic schists occur; and underlying these to the south is a great thickness of trap flows, forming part of the Santaveri and Bābā Budan mountains. The trap flows are disposed in a very flat anticlinal curve, and to the west are seen to be overlaid by a great thickness of dark schists, with haematite bands and quartzites overlying these again. In the country around Ajjampur and Tarikere masses of conglomerate are developed, consisting chiefly of large boulders and pebbles of granite in a quartz-felspar-chlorite matrix ; these pass through various gradations into grits, quartzites, and chloritic schists.

At the extreme heights of Mulainagiri and Kudremukh the mountains are clothed with grass and herbs, but are generally bare of trees. The plants of the west of Mysore and of Coorg are nearly all found in this alpine District, in addition to such as *Lysimachia deltoides*, *Anemone rivularis*, *Ranunculus diffusus*, *Cinnamomum Wightii*, with other genera and species far too numerous to mention.

At Chikmugalūr, the head-quarters, the mean annual temperature is between 72° and 73°, the daily range being about 20°. The temperature of the Malnād often falls much lower, the cold in the early morning at Christmas time being very sharp. Malarious jungle fevers are always prevalent at certain seasons, and neither Europeans nor natives are exempt from attacks. The average annual rainfall at Chikmugalūr is variously stated at from 36 to 42 inches. But the country lying within the Western Ghāts has a far heavier fall. The annual average at Koppa is given as 122 inches, and at Mudgere as 103. At Hariharpur 166 inches fell in 1874; at Mudgere 194 inches in 1882, and at certain coffee estates in that *tāluk* 145 and 156 inches have been received in a year. The fall is heaviest in June, July, and August, there being 43 inches in July alone.

The west was from an early period subject to the Kadambas, and the

remainder of the District to the Gangas. About the eighth century the Sāntara kingdom was established at Pomburchcha or Humcha in Shimoga District. The Sāntaras extended their rule southwards as far as Kalasa in this District, and at a later period made their capital at Sisila or Sisugali at the foot of the Ghāts in Mudgere. Eventually their capital was at Kārkala in South Kanara. At one time they acknowledged the supremacy of the Chālukyas, and were stanch Jains. But under Vijayanagar rule they became Lingāyats, and were known as the Bhairarasa Wodeyars. Meanwhile, the Hoysalas arose at the beginning of the eleventh century, their original seat being Sosevūr, now Angadi in the Mudgere *tāluk*. They were supreme throughout Mysore and beyond from the twelfth to the fourteenth century, when they were overthrown by Musalmān invasions from the north of India. The Vijayanagar empire was founded in 1336, and its success at first was greatly due to the aid given by the head of the Sringeri *math*, originally established by the reformer Sankarāchārya in the eighth century. In consequence of this aid the capital of the new empire was called Vidyānagara, after Vidyāranya or Mādhava, its first minister, who was also the head of the *math*. Vidyānagara in course of time passed into the form Vijayanagara. After the fall of Vijayanagar, the Keladi chiefs of Bednūr assumed independence, and restored the possessions of the Sringeri *math*. In the seventeenth century Sivappa Naik of Bednūr overran many parts of the District. But he was opposed by Mysore; and in 1694 a treaty was signed between the two powers, by which the latter gained nearly the whole of the District, and Haidar Alī's conquest of Bednūr in 1763 completed its inclusion in Mysore. In the east, Tarikere was the seat of a line of feudatory chiefs driven out of Basavāpatna in Shimoga District by the Bijāpur invasions of the seventeenth century. When, in 1830, a rebellion broke out in the Nagar country, owing to the misrule of the Rājā, the Tarikere chief was one of the first to escape from Mysore and join the rebels. The result was the extinction of this line of chiefs. The opening out of the inaccessible Malnād country in the west by roads at the end of last century has secured the peace of that wild part.

History.

The most important archaeological feature is the Amritesvara temple near Tarikere, erected in the twelfth century, under the Hoysalas. Some interesting Jain temples are represented by the ruins at Sosevūr or Angadi, the place of origin of the Hoysalas, which contain fine specimens of carving. The Vidyāsankara temple at Sringeri is an effective building, in the Dravidian style of Vijayanagar. The inscriptions of the District have been translated and published.

The population at each Census in the last thirty years was: (1871)

310,176, (1881) 293,822, (1891) 332,025, and (1901) 362,752. The decrease in 1881 was due to the famine of 1876-8. By religion, in 1901 there were 326,960 Hindus, 18,144 Musalmāns, 12,205 Animists, 3,888 Christians, and 1,554 Jains. The density of population is 129 persons per square mile, that for the State being 185. The number of towns is 10, and of villages 1,352.

Population.

The following are the principal statistics of population in 1901. —

Tāluk	Area in square miles.	Number of Towns.	Number of Villages.	Population.	Population per square mile.	Percentage of variation in population between 1891 and 1901.	Number of persons able to read and write.
Kadūr	571	3	317	80,904	142	+ 12·0	4,066
Chikmugalūr	638	1	235	90,681	142	+ 6·6	5,882
Mudgere	435	1	137	46,212	107	+ 11·7	2,284
Koppa	657	2	168	54,827	83	+ [illegible]·4	3,445
Sringeri *jāgīr*	44	1	259	10,656	244	+ 16·5	1,216
Tarikere	468	2	236	79,472	170	+ 12·5	4,392
District total	2,813	10	1,352	362,752	129	+ 9·1	21,207

NOTE.—In 1902-3 a transfer of 25 square miles was made from the Kadur *taluk* to Chitaldroog District.

As regards castes, Lingāyats number 70,000; the outcaste Holeyas and Mādigas, 56,000 and 13,000. Wokkaligas or cultivators, 50,000. Of Brāhmans there are 18,000. Two-thirds of the Musalmāns are Shaikhs, 12,000. Of nomads, Lambānis number 8,600; Koramas, 2,000; and Iruligas, 1,200. By occupation, 70·3 per cent. are engaged in agriculture and pasture, 12·3 per cent. in unskilled labour not agricultural, and 6·9 per cent in the preparation and supply of material substances.

There are 3,888 Christians in the District, of whom 3,606 are natives. The Roman Catholics and Wesleyans have stations at Chikmugalur and visit other parts.

Along the south of the Bābā Budan mountains is a rich tract of black cotton soil, whose fertility, enhanced by the command of an unfailing supply of water from the hill streams, is said formerly to have given to the plain of Chikmugalur the name of Honjavanige Sime, or 'land flowing with gold.' The higher tracts of this region are generally gravelly. Black cotton soil prevails also in the neighbourhood of Ajjampur, together with red and gravelly soils. The western parts of Tarikere contain sandy and gravelly soils. About Yegate the earth seems poor and has a white chalky appearance. Farther south the soil is adapted to the cultivation of the coco-nut without irrigation, as in the adjoining parts of Tumkūr and Chitaldroog Districts. The soil of the Malnād bears a general

Agriculture.

resemblance to that of the same region extending through the neighbouring Districts north and south.

The following table gives statistics of cultivation for 1903-4 :—

Tāluk.	Area in square miles, shown in the revenue accounts.				
	Total.	Cultivated.	Irrigated.	Forests.	Cultivable waste.
Kadūr	536	202	17	1	85
Chikmugalūr	609	144	42	85	22
Mudgere	426	80	35	4	9
Koppa	658	82	51	118	18
Tarikere	460	178	18	57	25
Total	2,689	686	163	265	159

In addition to the ordinary cereals, pulses, and oilseeds, the following crops call for special notice. The areca gardens, which occupy the moist and sheltered valleys throughout the west, produce the best description of nut in the country, that of Kalasa and its neighbourhood being in especially high repute. The coffee cultivation of Southern India had its origin in this District. It was first introduced by Bābā Budan in the seventeenth century on his return from a pilgrimage to Mecca, when he planted a few berries he had brought with him near his hut on the hills that bear his name. But it was not till 1820 that the cultivation extended beyond his garden, and not till twenty years later that European enterprise was first attracted to it. The original plants then put in by Mr. Cannon to the south of Bābā-Budan-giri are still flourishing. Land was soon after taken up for coffee in South Manjarābād, and since 1860 European planters have settled in almost a continuous chain of estates throughout the Malnād. The coffee zone in this District is estimated to cover about 1,000 square miles. The cardamom grows wild in the same parts, but owing to the extension of coffee estates it is no longer plentiful except in the Kalasa and Melbangādi *māganis*. Its systematic cultivation has been taken up in some parts with success. Experiments made with cinchona, tea, cotton, and mulberry have not been successful. The area occupied by the various crops in 1903-4 was: *rāgi*, 172 square miles; rice, 153; coffee, 123; gram, 42; other food-grains, 67; garden produce, 26: oilseeds, 22.

During the twelve years ending 1904 there was advanced for land improvements Rs. 14,500, and for irrigation wells Rs. 7,300.

The area irrigated from channels is 12 square miles, from tanks 54, and from other sources 97. The number of tanks is 4,394, of which 103 are classed as 'major.'

The west of the District contains some of the best forests in the

State. The Lakvalli teak forests have for many years supplied Western Mysore and the Bellary country with that timber. Throughout the Jāgar valley and most of the Koppa and Mudgere *tāluks*, a continuous stretch of valuable forest densely clothes the hill-sides, giving shelter to much coffee cultivation. The State forests cover an area of 144 square miles, 'reserved' lands 124, and plantations 144. The forest receipts in 1903-4 were Rs. 2,98,000, chiefly from sandal wood.

Gold-mining was begun near Ajjampur by the Kadūr-Mysore Company, but owing to the poor prospects has been suspended. Iron ore is obtained largely and smelted along the hills east of the Bābā Budan range, and round Ubrāni. Corundum is found in abundance near Kadūr and throughout the east.

Trade and communications.

The principal articles manufactured are oils and oil-cake, cotton piece-goods, woollen blankets, and glass bangles. Jaggery is also made, and there is some production of iron. A certain amount of catechu or terra japonica is prepared. There are reported to be 300 looms for cotton, 400 for wool, 87 oil-mills, and 201 jaggery and sugar-mills.

The most important exports are coffee, pepper, cardamoms, rice and other food-grains, and oilseeds. It is only a quarter of a century since the Malnād began to be opened up by a network of roads, and only since 1889 that the railway has run through a small part of the District. These agencies must certainly effect considerable changes in trade and the transport of commodities. The principal traffic between the Malnād and Maidān *tāluks* was formerly through five *kanaves* or passes: namely, Talagudde, Talamakki, Birnahalli, Gantevināyakan, and Sitalmallapan.

The Southern Mahratta Railway from Bangalore to Poona runs through the east of the District, with a branch from Birūr north-west to Shimoga, the total length of line being 62 miles. Provincial roads have a length of 259 miles, and District fund roads of 403 miles.

There has been no general famine in the District since that of 1876-8, but the areca gardens have suffered occasionally in periods of drought.

Administration.

The District is divided into five *tāluks*: CHIKMUGALŪR, KADŪR, KOPPA (including Sringeri *jāgīr*), MUDGERE, and TARIKERE. The following subdivisions were formed in 1903, and placed under Assistant Commissioners: Chikmugalūr and Mudgere, Kadūr, Tarikere, and Koppa, with head-quarters at Chikmugalūr.

The District court at Shimoga has jurisdiction over the whole of this District, and the Subordinate Judge's court over a part. There is a Subordinate Judge's court at Chikmugalūr for the remaining part, and a Munsif's court at Yadehalli.

The land revenue and total revenue are shown below, in thousands of rupees :—

	1880-1.	1890-1.	1900-1.	1903-4.
Land revenue . .	6,92	7,73	8,42	8,11
Total revenue . .	9,13	12,27	14,46	15,55

The revenue survey and settlement were introduced into the east of the District in 1877–8, and into the west in 1880–1. The incidence of land revenue per acre of cultivated area in 1903–4 was Rs. 1–12–10. The average assessment per acre on 'dry' land is R. 0–13–1 (maximum scale Rs. 2–10–0, minimum scale R. 0–0–6); on 'wet' land, Rs. 3–4–0 (maximum scale Rs. 8–8–0, minimum scale R. 0–1–0); on garden land, Rs. 7–4–2 (maximum scale Rs. 18, minimum scale Rs. 1–8–0).

There were eight municipalities in 1903–4—CHIKMUGALŪR, TARIKERE, BIRŪR, Kadūr, Yedehalli, Mudgere, Koppa, and Sringeri—with a total income of Rs. 57,000 and an expenditure of Rs. 66,000. There were also two village Unions, Ajjampur and SAKKAREPATNA, whose income and expenditure were Rs. 2,000 and Rs. 7,000. The District and *tāluk* boards had an income of Rs. 50,000 in 1903–4, chiefly derived from a share of the Local fund cess, and spent Rs. 49,000, including Rs. 33,000 on roads and buildings.

The strength of the police force in 1903–4 was one superior officer, 60 subordinate officers, and 381 constables. There were 7 lock ups, containing a daily average of 16 prisoners.

In 1901 the percentage of literate persons was 5·9 (10·5 males, 0·6 females). The number of schools increased from 201 with 5,130 pupils in 1890–1 to 292 with 7,324 pupils in 1900–1. In 1903–4 there were 207 schools (95 public and 112 private) with 4,936 pupils, of whom 692 were girls.

Besides the civil hospital at Chikmugalūr, there are 14 dispensaries, in which 111,882 patients were treated in 1904, of whom 700 were in patients, the number of beds available being 36 for men and 22 for women. The total expenditure was Rs. 33,000.

The number of persons vaccinated in 1904 was 4,723, or 13 per 1,000 of the population.

Kadūr Tāluk.—Eastern *tāluk* of Kadūr District, Mysore, lying between 13° 19′ and 13° 50′ N. and 75° 51′ and 76° 22′ E., with an area of 571 square miles. The population in 1901 was 80,904, compared with 72,217 in 1891. The *tāluk* contains three towns, BIRŪR (population, 5,701), Kadūr (3,881), the head-quarters, and SAKKARAPATNA (1,884); and 317 villages. An area of 25 square miles was transferred to Chitaldroog District in 1902–3. The land revenue demand in 1903–4 was Rs. 1,75,000. On the west lies the complicated

mass of hills (Sakunagiri, 4,653 feet) east of the Bābā Budans, and on the east the Garudangiri (3,680 feet) group. The Vedāvati river runs through the middle in a north-easterly direction. It is formed by the junction of the Veda and Avati, which rise in the Bābā Budans, the former supplying the Ayyankere, and the latter the Madagakere, the two largest tanks in this part of the country. Numerous channels are taken off from dams across these streams, forming an irrigated tract of great fertility. The annual rainfall averages 22 inches. Most of the *tāluk* is a slightly undulating plain. The waste lands are covered with wild date or *babūl* trees, and a considerable area is reserved for grazing, supporting a large number of cattle and sheep. Superior tobacco is grown in the south and west. Coco-nuts are grown without irrigation in low sandy soils. Iron ore is obtained from Hogaribetta in the north-west.

Kadus.--An Upper Burmese tribe inhabiting the central portion of the watershed that separates the Irrawaddy from the Chindwin river. In 1901 the tribe numbered 34,629, nearly all of whom were inhabitants of Kathā District. The origin of the Kadus is doubtful; but, judging by their language and habitat, it seems probable that they are descendants of hill tribes who have intermarried with the surrounding Shan and Burman population and have by some means acquired a tribal identity of their own. Their speech is a mixture of Burmese, Shan, and Kachin, but is now gradually dropping out of use, and will doubtless soon become obsolete. In dress the Kadus used to differ somewhat from their neighbours, but only the elder women now adhere to the tribal costume, which consists of a wholly black or dark-blue jacket, petticoat, and head-cloth. Burmese dress has become almost universal. The practice of staining the teeth of the women appears to have been followed in the past, but the custom is dying out. The Kadus are Buddhists. They have two main subdivisions, known as the *Apwa* (male) and the *Ama* (female), but the distinction has been obliterated by intermarriage. They are believed to be connected with the Saks or Thets, an almost extinct tribe of Arakan. It is possible that they are allied to the Tamans, a probably hybrid tribe of the Upper Chindwin District.

Kāfiristān (literally, 'the country of the infidels').—A mountainous region in Afghānistān, lying due north of Jalālābād, in which district it is now included. Its approximate area is about 5,000 square miles. Its boundaries are the Hindu Kush on the north; the eastern watershed of the Bashgal on the east; the Kunar valley and the Kābul country on the south; and on the west the ranges above the Nijrao and Panjshīr valleys. Kāfiristān consists of an irregular series of main valleys, for the most part deep, narrow, and tortuous, into which a number of ravines and glens pour their torrents. The hills separating

the main valleys one from the other are of considerable altitude, rugged, and difficult. As a consequence, during the winter, Kāfiristān consists practically of a number of separate communities with no means of communication with one another. The country appears to be divided into three main drainage systems—those of the Kao or Alingār; of the Pech or Kāmah, named after the important pass of that name; and of the Bashgal. All these streams ultimately find their way into the Kābul river.

In Kāfiristān every kind of mountain scenery is to be met with. At the lower elevations the hill-sides are covered with wild olives and evergreen oaks. Fruit trees abound--the walnut, mulberry, apricot, apple, and vine—while splendid horse chestnuts and other trees offer pleasant shade in the hot season. As one ascends, the fruit trees disappear, being replaced by dense pine and cedar forests. These in their turn cease--the hills above 9,000 feet are almost bare—but the willow, birch, and juniper cedar are found. Above 13,000 feet no vegetation exists, except rough grasses and mosses. The rivers teem with fish, which, however, no Kāfir will eat. The chief wild animals are the *mārkhor*, the *uriāl*, leopards, and bears.

With the exception of a short visit to the upper part of the Bashgal valley by Colonel Lockhart's mission in September, 1885, and of Sir George Robertson's two visits in 1889 and 1890–1, the country has not been penetrated by any Europeans in modern times. The people of the country, styled Kāfirs ('infidels') by their orthodox Afghān neighbours, were known to the emperor Bābar as the Siāhposh ('wearers of black raiment'). They comprise several more or less inimical tribes, differing from one another in language, dress, manners, and customs; and even their primitive pagan religion afforded no bond of common union. This was a somewhat low form of idolatry, with an admixture of ancestor cult and traces of fire-worship. Their total number probably does not exceed 60,000. Until recent years these mysterious people were popularly supposed to be a fair race, noted for their beauty, and of Graeco-Bactrian origin. As a matter of fact they are by no means fair, their colour being that of the average native of the Punjab; their usual type of feature is good; but their beauty, like many other ideas concerning them, is a myth. Sir George Robertson considers that the present dominant races of Kāfiristān are mainly descended from the old Indian population of Eastern Afghānistān, who refused to embrace Islām in the tenth century, and fled for refuge from the victorious Moslems to the hills. Dr. Grierson, however, holds that the Kāfir dialects (which Dr. Trumpp considered to be a 'pure Prākrit') belong to the non-Sanskritic languages of the Indo-Aryan family, and that 'the speakers of these appear to have arrived at their present seats from the north, and not to be colonists

from the south, where that form of Indo-Aryan language which we call Sanskrit became developed[1].'

Whatever their origin, the Kāfirs, except in the case of the outlying Sāfis (*see* JALĀLĀBĀD), succeeded in resisting all attempts at conversion until the reign of the late Amīr, when Afghān troops overran the country, and brought about its complete subjection. With the exception of the Rāmgulis, who held out for a considerable period, the Kāfirs, who were ill-armed, made but a feeble resistance, and have accepted the Muhammadan religion with little demur. A very small garrison of Afghān troops now suffices to keep the country in order.

There is a small slave population, who are perhaps the remnant of more ancient people subjugated by the lately dominant tribe. The affairs of a tribe are nominally arranged by a consultation of headmen who are known as *jast*; but, as a matter of fact, in ordinary times. public business falls into the hands of a few elders. Disobedience to the *jast* is punished by burning down the offender's house and destroying his property. Theft is punishable by a fine of seven or eight times the value of the stolen property, but the full penalty is seldom exacted. The punishment for adultery is a fine in cows varying from three to six. It is in consequence not uncommon for women to endeavour to entangle men in order to get cows for their husbands. Murder and manslaughter are punished alike. The offender must at once leave his village and become a *chile* or outcast. His house is burnt by the dead man's family or clan and his property plundered; he must nevermore return to his village except by stealth; and whenever he encounters a member of the dead man's family he must at once conceal himself. This stigma applies not only to the criminal himself, but to his direct descendants and to his children-in-law. There are several villages in Kāfiristān which are places of refuge, where slayers of their fellow-tribesmen reside permanently.

Kāfir women are practically slaves, being to all intents and purposes bought and sold as household commodities The young women are mostly immoral. There is little or no ceremony about a Kafir marriage. If a man becomes enamoured of a girl, he sends a friend to her father to ask her price. If a price is agreed upon, the man immediately proceeds to the girl's house, where a goat is sacrificed, and then they are considered to be married, though the bride remains with her parents until the full price has been paid. The dead are disposed of in a peculiar manner. They are not buried, or burnt, but are deposited in large boxes, placed on the hill-side or in some more or less secluded spot.

Kāfirkot.—Ruins in Dera Ismail Khān District, North-West Frontier Province, situated in 32° 30′ N. and 71° 21′ E. The site is also known

[1] *Report on the Census of India*, 1901, chap. vii.

as Til Kāfirkot or Rājā Sir-kot, and lies a few miles south of the point where the Kurram river joins the Indus, upon a spur of the Khisor hills. The remains consist of extensive lines of bastioned walls built of solid masonry, enclosing an area filled with the débris of ancient dwellings. The remains of four small Hindu temples are relatively well preserved, and their outer faces are decorated with elaborate carvings of stone. For some details see A. Cunningham, *Archaeological Survey Reports*, vol. xiv, pp. 26, 254, and Dr. Stein's *Archaeological Survey Report of the North-West Frontier Province and Baluchistān* (1903-5). A similar ruin of the same name exists at Bilot, about 30 miles due south.

Kāgal State.—Native State feudatory to the Kolhāpur State, within the Political Agency of Kolhāpur and the Southern Marāthā Country, Bombay, lying between 16° 30′ and 16° 35′ N. and 74° 20′ and 74° 25′ E. *See* KOLHĀPUR STATE.

Kāgal Town.—Chief town of the feudatory *jāgīr* of the same name in Kolhāpur State, Bombay, situated in 16° 34′ N. and 74° 20′ E., 10 miles south-east of Kolhāpur city. It lies in the valley of the Dudhganga about a mile south of the river, surrounded by rich garden land and shaded by fine old mango-trees. Population (1901), 7,688. There are ruins of mosques and temples. The old fort was destroyed by Jaswant Rao Sindhia of Kolhāpur in 1780, and a new fort was built about 1813 by Hindu Rao Ghatge. Of the public buildings lately raised at a cost of about one lakh, the most important are three large resthouses, three temples, one of which contains the *karbhāri's* office, and water-works from which pipes supply the town reservoirs with water. Every year in Kārtik (October-November) a fair is held in honour of Gaibi Pīr, at which the chief spends about Rs. 2,000. The fair is attended by 10,000 people from Kolhāpur and the neighbouring villages.

Kāgān (*Khāgān*).—Mountain valley in Hazāra District, North-West Frontier Province, penetrating far into the heart of the Himālayan system, and surrounded by Kashmīr territory on every side except the south. The valley has an area of 800 square miles, and is 60 miles in length, with an average breadth of 15 miles. Lofty ranges shut it in on either hand, their summits rising to a height of 17,000 feet. Transverse spurs intersect the valley, which is inhabited by a sparse population. Kāgān comprises twenty-two *rakhs* or forest and grazing Reserves, with a total area of 90 square miles, while the area of 'reserved' and unreserved forest is 457 square miles. The rights of cutting grass and grazing cattle are leased out annually. The Forest department only fells timber, which is launched into the river Kunhār, caught at different timber dépôts, and rafted to Jhelum. The river Kunhār forces its way through a narrow central gorge to join the Jhelum after draining the entire valley. The Kāgān valley forms the northernmost extension of

British India, and stretches far up into the mountain region. Its open mouth turns towards the main body of Hazāra District. The inhabitants consist almost entirely of Muhammadan Swātis and Gūjars. Kāgān village is situated in 34° 46′ N. and 75° 34′ E.

Kahalgaon.—Town in Bhāgalpur District, Bengal. *See* COLGONG.

Kahlūr.—One of the Simla Hill States, Punjab. *See* BILĀSPUR.

Kahnaur.—Town in the District and *tahsīl* of Rohtak, Punjab, situated in 28° 45′ N. and 76° 32′ E., 11 miles south of Rohtak town and 15 miles north-west of Jhajjar. Population (1901), 5,024.

Kahror.—Town in the Lodhrān *tahsīl* of Multān District, Punjab, situated in 29° 37′ N. and 71° 56′ E., on an old bed of the Beās known as the Bhatāri nullah, about 8 miles from the present right bank of the Sutlej. Population (1901), 5,552. Being built on undulating ground, it is more picturesque than most Punjab towns. The town is said to have been founded by Kailun, chief of Jaisalmer, at the end of the fourteenth century; its identification with the Karūr where Vikramāditya is said to have defeated the White Huns is extremely doubtful. The most remarkable building in the town is the shrine of Alī Sarwar, a Saiyid of Delhi, who came to Kahror in 1204. The municipality was created in 1867. The income and expenditure during the ten years ending 1902–3 averaged Rs. 4,000. In 1903–4 the income was Rs. 4,300, chiefly from octroi; and the expenditure was Rs. 4,100. The town has a vernacular middle school, maintained by the municipality, and a dispensary. It is the trade centre for the Sutlej *tahsīls* of the District, dealing especially in wool, piece-goods, and wheat, and has a local reputation for the manufacture of coverlets of hand-printed cotton.

Kahūta.—Eastern *tahsīl* of Rāwalpindi District, Punjab, lying in the Lower Himālayas, between 33° 18′ and 33° 48′ N. and 73° 15′ and 73° 39′ E., with an area of 457 square miles. Its eastern border rests upon the Jhelum river. The whole of the *tahsīl* except the south-west corner lies in the hills, which in the north reach an elevation of over 6,000 feet. The population in 1901 was 94,729, compared with 92,372 in 1891. It contains 231 villages, of which Kahūta is the head-quarters. The land revenue and cesses amounted in 1903–4 to 1·2 lakhs.

Kaij.—Former *tāluk* of Bhīr District, Hyderābād State. *See* AMBA TĀLUK.

Kail.—Ancient port in Tinnevelly District, Madras. *See* KĀYAL.

Kailang.—Village in Kāngra District, Punjab. *See* KYELANG.

Kailwārā.—Town in Udaipur State, Rājputāna. *See* KELWĀRA.

Kaimganj Tahsīl.—North-western *tahsīl* of Farrukhābād District, United Provinces, comprising the *parganas* of Kampil and Shamsābād

West, and lying along the southern bank of the Ganges, between 27° 21′ and 27° 43′ N. and 79° 8′ and 79° 37′ E., with an area of 363 square miles. Population increased from 143,557 in 1891 to 168,606 in 1901. There are 397 villages and two towns: KAIMGANJ (population, 10,369), the *tahsīl* head-quarters, and SHAMSĀBĀD (8,375). The demand for land revenue in 1903–4 was Rs. 2,10,000, and for cesses Rs. 36,000. The density of population, 464 persons per square mile, is below the District average. The *tahsīl* contains a larger tract of lowland than any other in the District except Alīgarh; but the greater part of it is situated in the uplands. The Bagār river winds through the southern portion, and on either bank stretches a wide expanse of sandy land, which extends on the north to near Kampil. North and west of this is a belt of fine yellowish loam, tilled by Kurmīs, and famous for its sugar-cane, and near the towns of Kampil, Kaimganj, and Shamsābād for its tobacco, which acquires a special flavour from the brackish water of the wells. The area under cultivation in 1903–4 was 226 square miles, of which 72 were irrigated. The Fatehgarh branch of the Lower Ganges Canal supplies irrigation through the centre of the uplands, and the area irrigated from canals is slightly larger than that supplied by wells. There are several considerable swamps, from which water is also taken; but a good deal has been done to improve the drainage.

Kaimganj Town.—Head-quarters of the *tahsīl* of the same name in Farrukhābād District, United Provinces, situated in 27° 30′ N. and 79° 21′ E., on the Cawnpore-Achhnerā Railway, and also at the terminus of a metalled road from Farrukhābād city. Population (1901), 10,369. It was founded in 1713 by Muhammad Khān, first Nawāb of Farrukhābād, who named it after his son, Kaim Khān. It is the centre of a group of villages inhabited by a colony of Pathāns who settled here early in the seventeenth century. The best known of these villages is Mau Rashīdābād, now a great tobacco field, about a mile north of Kaimganj. The Pathāns of this neighbourhood are still noted for the number of men they supply to the native army. In 1857 the *tahsīli* was ineffectually besieged for a time by a band of fugitive insurgents from Kālpī. The town consists chiefly of a wide metalled bazar, about a mile long, from which branch many narrow unmetalled lanes. It contains a *tahsīli*, *munsifi*, and dispensary. Kaimganj is administered under Act XX of 1856, with an income of about Rs. 2,000. There is a considerable trade in tobacco, which is largely grown in the neighbourhood. The old manufacture of swords and matchlocks has dwindled down to a trade in ordinary knives and betel-nut cutters. The town school has 193 pupils, and three primary schools 63.

Kaimur Hills.—The eastern portion of the Vindhyan range, commencing near Katangī in Jubbulpore District of the Central Provinces

(23° 26′ N. and 79° 48′ E.). It runs a little north of east for more than 300 miles to Sasarām in Bihār (24° 57′ N. and 84° 2′ E). The range, after traversing the north of Jubbulpore District and the south-east of Maihar State, turns to the east and runs through Rewah territory, separating the valleys of the Son and Tons rivers, and continues into Mirzāpur District of the United Provinces and Shāhābād of Bengal. Its maximum width is 50 miles. In the Central Provinces the appearance of the range is very distinctive. The rock formation is metamorphic and the strata have been upheaved into an almost vertical position, giving the range the appearance of a sharp ridge. In places the range almost disappears, being marked only by a low rocky chain, and in this portion it never rises more than a few hundred feet above the plain. The range enters Central India at Jukehi in Maihar State (23° 29′ N. and 80° 27′ E.), and runs for 150 miles in a north-easterly direction, forming the northern wall of the Son valley and overhanging the river in a long bold scarp of sandstone rock, from which near Govindgarh a branch turns off to the north-west. The range here attains an elevation of a little over 2,000 feet. In Mirzāpur the height of the range decreases in the centre, to rise again to over 2,000 feet at the rock of Bijaigarh with its ancient fort. Interesting relics of prehistoric man have been found in the caves and rock shelters of the hills here, in the form of rude drawings and stone implements. In Shāhābād District the summit of the hills consists of a series of saucer-shaped valleys, each a few miles in diameter, containing a deposit of rich vegetable mould in the centre and producing the finest crops. The general height of the plateau is here 1,500 feet above sea-level. The sides are precipitous, but there are several passes, some of which are practicable for beasts of burden. The ruined fort of ROHTĀS is situated on these hills. The rocks throughout consist principally of sandstones and shales.

Kain. River in Bundelkhand. *See* KEN.

Kaintira. - Village in Athmallik, one of the Orissa Tributary States, Bengal, situated in 20° 43′ N. and 84° 32′ E., on the north bank of the Mahānadī. Population (1901), 1,567. Kaintira is the principal village in the State and contains the residence of the chief.

Kaira District (*Kheda*). - District in the Northern Division of the Bombay Presidency, lying between 22° 14′ and 23° 7′ N. and 72° 30′ and 73° 23′ E., with an area of 1,595 square miles. It is bounded on the north by Ahmadābād District, Mahi Kāntha, and the small State of Bālāsinor in the Rewā Kāntha Agency; on the west by Ahmadābād District and the State of Cambay; on the south and east by the river Mahī and the Gaikwār's territory (Baroda). The breadth of the District varies from 25 to 40 miles.

Excepting a small corner of hilly ground near its northern boundary,

and in the south-east and south, where the land along the Mahī is furrowed into deep ravines, Kaira forms one unbroken plain sloping gently towards the south-west. The north and north-east portions are dotted with patches of rich rice land, broken by untilled tracts of low brushwood. The centre of the District, called the *charotar*, or 'goodly' land, is very fertile and highly cultivated; the luxuriant fields are surrounded by high-growing hedges, and the whole country is clothed with clusters of large shapely trees. Westward, this belt of rich vegetation passes into a bare though well-cultivated tract of rice land, growing more barren and open to the south till it reaches the maritime belt, whitened by a salt-like crust, on the Gulf of Cambay.

Physical aspects.

The MAHĪ, the largest river of Kaira, and the third in importance of the Gujarāt rivers, flows for nearly 100 miles along the east, south-east, and south boundary of the District. This 100 miles may be divided into three sections: first a stretch of 40 miles over a rough and rocky bed, then 10 miles of a still stream with a sandy bed, and lastly 45 miles of a tidal river. The fords in the District are at Kāvi, Dehvān, Gajna, Khānpur, and Ometa. At Verākhāndi, the limit of the flow of the tide, the bed is in the dry season 500 yards wide, the stream 120 yards, and the average depth 1½ feet. A small 'bore' rises in the estuary at springs and dashes itself on the Dehvān. The SĀBARMATĪ, the fourth largest river in Gujarāt, flows for 14 miles along the western boundary, and is much used for irrigation. The Shedhi, the chief drainage line of the plain between the Mahī and the Sābarmatī, being charged with soda, is not adapted for irrigation. The Khāri, one of five smaller streams, waters a large area by means of canals and sluices, but fails at the end of the rice season, that is to say about November.

The District has not yet been geologically surveyed in any detail. The Kaira plain is, with the exception of the few sandy hills and rocks in Kapadvanj and Thāsra, a deep bed of alluvium, most of it the débris of the gneiss and metamorphic limestones of the Arāvalli Hills. In the raised tract along the banks of the Mahī, water is found only at a depth of from 80 to 110 feet. Away from the river, wells have their springs from 40 to 60 feet deep, rising through strata of earth mixed with lime-stone nodules, alternating with sand overlying layers of limestone. From this limestone, when tapped, water rises to within 25 feet of the surface. The age of these strata is not known. They may be Tertiary or Cretaceous. Formerly, in parts of the District, water was to be found at a higher level. Many old wells are said to have been made useless by the earthquake of 1819, which lowered all the springs from 5 to 10 cubits. In some cases deeper sinking has overcome the evil; in others, a fine stratum of quicksand makes farther cutting dangerous. The hot springs of Lasundra, 10 miles south-east of Kapadvanj, rise to

the surface in ten or twelve cisterns, the hottest reaching a temperature of 115°. Like those at Tuva in Godhra, 20 miles to the south-east, and at Anāval, 150 miles south, the Lasundra springs are slightly sulphurous, and thought to be useful in skin diseases.

The District has no forests or forest lands, the trees either standing singly or in small groves. In the north the *mahuā* (*Bassia latifolia*), and in the south the mango and the *limbdo* or *nīm* (*Melia Azadirachta*), are the commonest kinds, while the custard-apple, *sitāphal* (*Anona squamosa*), is abundant all over the District. The *rāyan* (*Mimusops hexandra*), the *kanaj* (*Ulmus integrifolia*), the *karanj* or *kaniji* (*Pongamia glabra*), and the *aduso* (*Ailanthus excelsa*), also occur freely distributed. Mangoes are sent in considerable quantities to Baroda, Ahmadābād, and Kāthiāwār. During the hot season the fleshy corolla of the *mahuā* flower is eaten by the poorer classes and by cattle, and from it is distilled a favourite liquor. Mixed with whey, the berries of the *rayan* form, during the hot season, the staple food of a large section of the Kolī population.

Tigers and leopards, which haunted the bed of the Mahī till a few years ago, are now rarely heard of, owing to the spread of tillage and their pursuit by European sportsmen. Hyenas, jackals, foxes, wild hog, antelope, gazelle, and hares are common. Of game-birds, snipe, quail, and many species of duck abound; while geese, bustard, partridge, and florican may occasionally be shot. Poisonous snakes are common. Mahseer and other fresh-water fish are caught in the waters of the larger rivers.

To Europeans the climate is trying. From November to March the air is pleasant and bracing. By the people of the District the *charotar* or central portion is considered healthy. The rainfall varies but slightly in different parts of the District. The annual fall is 38 inches in the Nadiād, Borsad, and Anand *tālukas*, while it averages about 34 inches over the whole District. The average temperature is 82°, the maximum being 116° and the minimum 43°.

History.

Kaira District is made up partly of lands acquired from the Peshwā in 1802 by the Treaty of Bassein, partly of territory transferred by the Gaikwār of Baroda in 1803 and 1817. Rājputs reigned in Kaira from 746 to 1290, and, excepting perhaps Thāsra and Kapadvanj, the District formed part of the directly managed portions of ANHILVĀDA. At the end of the fourteenth century Kaira passed to the Muhammadan kings of Ahmadābād, and in 1573 was transferred to the Mughals. In 1720 the Marāthās appeared, and from that time to the fall of Ahmadābād in 1752 the District was the scene of perpetual struggles between the Marāthās and the Muhammadan viceroys. The Marāthās were victorious, and in 1753 the District was shared between the Peshwā and the Gaikwār

Part of Kaira came into British possession in 1803, and the rest in 1817. Under the terms of the Treaty of Bassein (December 31, 1802), the Nāpād group of villages was handed over by the Peshwā. In 1803 the Gaikwār ceded Nadiād, Mātar, and Mahudha, as well as the fort and town of Kaira, for the maintenance of troops supplied by the British Government. Again, by treaty dated November 6, 1817, the Gaikwār ceded Mehmadābād, Alīna, Thāsra, Antroli, and half of the town and district of Petlād to provide for the payment of additional troops. At the same time, Kapadvanj and Bhālaj were received in exchange for the district of Bijāpur in Northern Gujarāt.

The territories acquired in 1803, together with Dholka, Dhandhuka, Rānpur, and Gogha, which now form part of Ahmadābād District, remained in charge of the Resident at Baroda from the date of their cession till May, 1805. During this time a European Assistant and native officers administered, according to local usage, the police and justice of the country. In 1805 a Collector was appointed, with jurisdiction over the ceded tracts, both those to the north of the Mahī and those to the west of the Gulf of Cambay. In the same year the town of Kaira was selected as a large military station. The increase in the British possessions consequent on the treaty of November, 1817, necessitated fresh administrative arrangements. The territory north of the Mahī was, from January 1, 1818, divided into the two Districts of Kaira and Ahmadābād. In 1830 Kapadvanj was included in Ahmadābād, and Kaira became a sub-collectorate under the Collector of Ahmadābād. In 1833 Ahmadābād and Kaira were again separated. Since then, more than once, villages have been transferred from one District to the other, and the original irregular groups and collections of villages have been gradually consolidated into seven *tālukas*.

Throughout the District are Hindu and Musalmān buildings of interest. The *rauza* of Mubārak Saiyid (died A. H. 966) at Sojāle is one of the finest of the latter. Kapadvanj contains some buildings of great antiquity: a beautiful arch described by Forbes in his *Rās Mālā*, a *kund* or basin of consecrated water, a mosque, and a well; and an underground temple of Mahādeo which has recently been explored for the first time. It is also remarkable for a fine Jain temple recently built.

Population.

In 1846 the population of Kaira District was returned at 566,513. By 1872 it had risen to 782,938. In 1881 the population was 805,005; in 1891, 871,794; and in 1901, 710,332. The decrease of 18 per cent. during the last decade was due to the famine and cholera of 1899–1900. The District is divided into 7 *tālukas*, with area and population (1901) as given in the table on the next page.

The number of towns in the District in 1901 was 11, and of villages 598. The chief towns are NADIĀD, KAPADVANJ, KAIRA (the

head-quarters), ANAND, and MEHMADĀBĀD. Owing to the large fertile areas which the District comprises, it is the most thickly populated in the Presidency. The most populous *tālukas* are Nadiād, Borsad, and Anand. Gujarātī is the vernacular. Classified according to religion, Hindus in 1901 numbered 614,146, or 85 per cent. of the total; Muhammadans, 68,187, or 9 per cent.; Christians, 25,210; Jains, 8,469; and Pārsīs, 209.

Tāluka.	Area in square miles.	Number of Towns.	Number of Villages.	Population.	Population per square mile.	Percentage of variation in population between 1891 and 1901.	Number of persons able to read and write.
Kapadvanj	279	1	87	75,258	270	-26	5,591
Mehmadābād	171	2	66	75,926	444	-18	7,007
Thāsra	257	1	96	73,980	288	-22	6,154
Mātar	216	1	81	61,522	285	-12	4,884
Nadiād	224	2	91	148,452	663	-13	16,099
Anand	244	3	85	143,405	587	-16	18,336
Borsad	204	1	92	137,889	673	-15	12,631
District total	1,595	11	598	716,332	449	-18	70,702

The following castes are of importance: Brāhmans, 38,000; Vānis, 22,000; Rājputs, 21,000; Chamārs, 13,000; Kunbīs (agriculturists), 127,000; Kolis (agriculturists), 252,000; Dhers or Mahārs, 21,000. The Muhammadans include 16,000 Pathāns and 10,000 Bohrās.

The Lewa and Kādva Kunbīs are the best farmers in the District, and a sober, peaceable, and industrious race. The Kunbīs of certain villages are held in honour as descended from the leading men among the original settlers in Gujarāt. The Rajputs, with the exception of a few who, with the title of Thākur, still retain landed estates, have sunk into the mass of ordinary peasant proprietors. The Kolīs number 252,000, or 35 per cent. of the total population. Idle and turbulent under native rule, they are now quiet, hard-working, and prosperous. Among Hindu low castes, the Dhers are distinguished for industry and good behaviour. They formerly lived in comfort by weaving coarse cotton cloth, but the competition of the Bombay and local mills is now shutting them out of the market. Of the Musalmān population, about one-third, under the name of Saiyids, Shaikhs, Pathāns, and Mughals, represent the foreign conquerors of Gujarāt. The remainder, called Momnas, Bohrās, Tais, and Ghānchis, are the descendants of Hindus converted to Islām under the Ahmadābād kings. Musalmāns of the first class, employed chiefly as cultivators or in Government service as police or messengers, are for the most part poor. Musalmāns of the second class are artisans, chiefly weavers and oil-pressers, and are hard-working and well-to-do. Most of the population is dependent on

agriculture, which supports 67 per cent. of the total. General labour supports 4 per cent., and the remainder are distributed between commerce and trade, personal service, &c. Over 15,000 are engaged in cotton-weaving.

At the Census of 1901 the native Christian population of the District was returned at 25,131, showing an increase of no less than tenfold since 1891. This may to some extent be the result of conversions to Christianity during the famine; but it is noteworthy that the Salvation Army has been active in Kaira for some years, and that a large number of the Christians are Salvationists, mainly converted from the lower classes. Besides the Salvation Army, the following missions are at work in the District: the Irish Presbyterian, with stations at Borsad and Anand, which maintains 2 Anglo-vernacular and 46 vernacular schools, 4 orphanages, and a hospital at Anand, and has settled 14 colonies of converts on waste land procured from Government; the Methodist Episcopal at Nadiād, which maintains 165 schools, an industrial school, an orphanage, and a dispensary, and which undertook extensive relief operations in the famine of 1900; the Christian Alliance in the Mātar *tāluka*, which maintains 9 schools and an orphanage and industrial school at Kaira; and the Roman Catholic at Anand, which maintains 19 schools, an industrial school, and an orphanage and dispensary. The Salvation Army maintains 112 schools and a well-equipped hospital at Anand, which is very popular among all classes. Khāsivādi, 'the beautiful garden,' in Borsad town was the first to show a leaning towards Christianity, two families having been converted there in 1847. There is an English church at Kaira known as St. George's Church, established about 1825.

Agriculture.

The soil belongs to four classes: light, medium, black, and alluvial, with subordinate varieties. The light soil is the most common, varying in quality from the loose-grained yellow sand of the fields near the Sābarmatī and the Mahī, to a rich lighter mould common in the central *tālukas*, and found to perfection in the south-west corner of Mātar. The medium soil is fairly well distributed over the whole District. The black soil of Kaira is poor and generally contains either soda or limestone. Alluvial soil or *bhātha* is found near the Vātrak river and is a rich garden mould.

The greater part of the land of the District is *ryotwāri* (1,075 square miles, or 88 per cent. of the total area), about 7 per cent. being held on *udhad* or quit-rent tenure. The main statistics of cultivation in 1903–4 are shown in the table on the next page, in square miles.

The chief crops, with the area under each in square miles (1903–4), are: *bājra* (313), *kodra* (162), rice (115), *jowār* (91), and wheat (18).

Cotton is grown in small patches (10 square miles). The finest tobacco in Western India is grown in Kaira, occupying 24 square

miles, mostly in the Nadiād, Borsad, and Anand *tālukas*; but the cultivators, though skilful in rearing the plant, know nothing of its preparation for the European market. Two varieties of tobacco are grown, the *talabdi* or local plant and the *khāndeshi* or plant introduced from Khāndesh. An irrigated field yields twice as large a crop as a dry one. About the beginning of July, as soon as the first rain has fallen, the seed is sown on a well-prepared plot of ground, and after about a month and a half the seedlings are ready for transplantation. The field is scored in squares by a heavy, long-toothed rake, and at each point of intersection a seedling is set. The plant takes about five and a half months to ripen. As soon as it is ready, it is carefully examined, and divided into two classes, *kālio* and *jardo*, the *kālio* is cut down, stalk and all, and laid out to dry; the *jardo* is left a little longer, and then the leaves are stripped off the stem. A moth caterpillar is the chief enemy of the plant. Tobacco-growing is a costly process, and can be undertaken only by substantial cultivators. It has been calculated that the cost of growing an acre of plant is Rs. 270, and the profit Rs. 110. Cotton is grown only from the local plant, and occupies every seventh furrow in fields sown with ordinary grain crops.

Tāluka	Total area.	Cultivated.	Irrigated.	Cultivable waste.
Kapadvanj	279	182	2	45
Mehmadābād	171	131	5	13¼
Thāsra	25[illegible]	141	½	52
Mātar	210	141	3	34
Nadiād	224	191	10	6
Anand	244	196	4½	2½
Borsad	204	149	12	¼
Total	1,595*	1,131	37	153

* The area for which statistics are not available is 29 square miles.

Several attempts have been made to improve the Kaira cotton, but without success. Indigo was once one of the chief exports from Gujarāt, but by 1827 it had almost ceased to be produced. A later attempt to encourage the growth in Kaira was attended with failure. A Government silk garden was started in 1837, but was closed in 1847. The Nadiād Agricultural Association's small experimental farm has been removed to Kamta, and has practically been handed over to the department of Agriculture, which has enlarged its scope and is providing new buildings. Numerous experiments in the cultivation of tobacco and other staple crops of the District have been made. It has been ascertained in the course of these experiments that a better yield of tobacco is obtained by growing it continuously instead of in rotation, that deep tillage increases the out-turn, and that Sumatra tobacco

cannot be grown. The *desi* or local tobacco stands first in quality and quantity, and the Belgaum varieties second. In the ten years ending 1903–4, a total of 19·8 lakhs was advanced to cultivators under the Land Improvement and Agriculturists' Loans Acts, of which 7·, lakhs was lent in 1899–1900, and 8·8 lakhs in 1900–1.

Cattle are imported from Kāthiāwār and Kānkrej in Northern Gujrāt. Some of the largest used to be bred in the District at Bhāla, and many villages of the Nadiād *tāluka* are famous for their bullocks. Ponies are bred in the District, but they are not suitable for cavalry remounts. Two Government pony stallions are maintained by the Civil Veterinary department.

Of the total cultivated area of 1,131 square miles, 37 square miles, or 3 per cent., were irrigated in 1903–4. The chief sources of irrigation are 11 minor works, 10,886 wells, and 1,391 tanks. The wells most commonly in use are deep, shallow wells being found only in the Mātar *tāluka*. The water is drawn up by bullocks in four leathern bags working simultaneously. The ponds are used for irrigating rice lands. After the close of the cold season few of them hold any large supply of water. The Khāri sluice system irrigated nearly 8,800 acres in 1903–4. In 1902 large reservoirs were constructed at Goblaj, Tranja, Nagrama, and Vangroli by famine labour.

Iron ore was at one time worked in the neighbourhood of Kapadvanj. In the bed of the Mājam river, about 15 miles from Kapadvanj, are found varieties of agate and moss-stone. The bed of the Mahi contains masses and boulders of trap; while on its upper course, on the Bālāsinor frontier, rock is plentiful, including trap, with occasional limestone, quartz, and granite.

The opening of steam factories at Ahmadābād and at Nadiād has greatly reduced the demand for hand-spun cotton, once a staple. The water of the District is thought to be especially good for dyeing purposes. Soap and glass are manufactured at Kapadvanj. A steam spinning-mill, established at Nadiād in 1876 at a cost of about 5 lakhs has 14,568 spindles, which turn out over a million pounds of yarn, and employ 584 persons. Considerable quantities of coarse cloth for home consumption are woven in hand-looms by the lower castes of Hindus. In the larger towns calico printing is carried on by classes known as Bhavsārs and Chhīpas.

Trade and communications.

The chief exports are prints, grain, tobacco, butter, oil, and *mahua* flowers; the chief imports are piece-goods, grocery, molasses, and dye-stuffs. Kaira is particularly noted for its *ghī* or clarified butter, the export of which is valued at 8 lakhs. The *ghī* when made is forced into large leathern bottles holding from 60 to 200 lb.

In 1884 there was only one made road in the District. There are

now 166 miles of metalled and 19 of unmetalled roads. Of the former, 33 miles of Provincial roads and 123 miles of local board roads are maintained by the Public Works department. All the water-courses are bridged except the large rivers, and avenues of trees are maintained along 49 miles. New roads were constructed by famine labour in 1900 from Mehmadābād to Dākor and from Borsad to Agas railway station. The whole of the District is connected with Ahmadābād city by metalled roads. The main line of the Bombay, Baroda, and Central India Railway passes through the District from north to south for 38 miles, and a branch line from Anand runs through the Pānch Mahāls to Godhra, where it connects with the Godhra-Ratlām Railway, traversing the District for 34 miles. In 1890 another branch line was opened from Anand to Petlād in Baroda territory, and thence in 1901 to Cambay town, thus bringing Kaira into close connexion with the sea. This line traverses the District for 6 miles. Ferries ply across the Mahī.

Famine.

A severe famine took place in 1791-2, when rain fell only once; in 1813-4 there were only two showers of rain throughout the year; in 1825 the later rains failed, and remissions of land revenue to the amount of over 1½ lakhs were granted. On the other hand, the period 1814-22 was marked by heavy floods and rainfall that caused much damage to the country. In 1834 locusts ate up the crops, and remissions amounting to nearly 2 lakhs were sanctioned. In 1837, 1868, and 1871 disastrous storms swept over the District. During the forty years 1836-76, though the rainfall had at times been scanty and the crops failed, no season of famine or even of general scarcity occurred in Kaira. Owing to the scanty rainfall in 1877 (19·13 inches), there was a partial failure of crops, and the poorer people, especially in the Kapadvanj and Thāsra *tālukas* in the north-east, suffered some distress, which, however, did not leave behind serious results. In 1899 the monsoon failed and the District was visited by severe famine. In April of the following year nearly 85,000 persons, exclusive of 8,000 dependants, were on relief works, and 15,000 more received gratuitous relief. The number increased to 143,000 by July of the same year, excluding 13,000 dependants and 38,000 on gratuitous relief. The latter reached a maximum of 113,000 in August. It is calculated that there was, during the three years 1900-2, an increase of 112,464 deaths over the yearly average. The loss of cattle in the year 1899-1900 amounted to 233,000. The cost of relief measures in the District, including the Pānch Mahāls, was over 88 lakhs. Remissions of land revenue to the amount of 35 lakhs were granted in these two Districts. The loans granted to agriculturists in Kaira alone amounted to 19 lakhs.

The District is divided into two subdivisions, in charge of an

Assistant Collector and a Deputy-Collector respectively, and is composed of the seven *tālukas* of ANAND, BORSAD, KAPADVANJ, MĀTAR, MEHMADĀBĀD, NADIĀD, and THĀSRA. The Collector is *ex-officio* Political Agent for Cambay State and Additional Political Agent for Rewā Kāntha.

Administration.

For judicial purposes the District is included in the jurisdiction of the Judge of Ahmadābād. There are 5 Subordinate Judges for civil work, and 23 officers, including a bench of magistrates, to administer criminal justice. The common offences are murder in Borsad and Anand, and house-breaking, burglary, cattle stealing, and thefts elsewhere.

In 1803, when Kaira was ceded to the British, the District afforded examples of various forms of land revenue administration. In the centre were three kinds of villages: *rāsti* or peaceable, *mehwāsi* or refractory, and an intermediate class of *rāsti-mehwāsi* villages. The refractory villages were occupied by the turbulent descendants of the Rājput and Kolī warriors. Here Kolī *thākurs* or chiefs administered despotically their little clusters of huts. Revenue was demanded but seldom paid. The peaceable villages were mostly grants from Government to those who had done some public service. The most important Muhammadan grants were called *māliki*, and were held rent free. Internal administration was the concern of the village community. There were four forms of village government, the commonest being that by which the village headman engaged annually for the payment of a certain sum to Government. The profits of a good year, under this the most simple and general system, went to the headman; on the other hand, the headman had to bear any loss from failure of crop or short tillage. Above the headman or *pātel* were the revenue-farmers (*kamāvisdār*), who fixed the village contributions, and below the headmen were the cultivators and coparceners of the village. A class quite apart, called *manotidārs*, or money-lenders, arose as sureties for the payment of the revenue. This short statement furnishes an outline of the Marāthā revenue system. It had the merit of simplicity and was calculated to ensure the recovery of revenue. At the same time it is clear that it was productive of abuses and suffering to the cultivating classes. When the District was taken over by the British in 1803, the system was continued with but small modification until 1862. In that year the revenue survey system, which deals directly with individual cultivators, was introduced. The result of the survey assessment was to increase the land revenue demand from 11⅛ to 13¼ lakhs, or by 11 per cent. In 1894 a resettlement was undertaken and completed in 1896, which further enhanced the total revenue by 17 per cent. The average rates of assessment are: 'dry' land, Rs. 3-7 (maximum Rs. 6-12, minimum Rs. 1-8); rice land, Rs. 5-11 (maximum Rs. 6-12,

minimum Rs. 1-8); garden land, Rs. 9-9 (maximum Rs. 7, minimum Rs. 5).

Collections of land revenue and total revenue have been as follows in recent years, in thousands of rupees :—

	1880-1	1890-1.	1901-2.	1903-4.
Land revenue . . .	19,69	19,52	10,34	18,31
Total revenue . . .	21,65	20,06	10,69	20,73

Of the Government villages, 88 are held on the *narvādāri* tenure The peculiarity of this tenure is that it involves joint responsibility for the payment of the Government revenue. In *narvādāri* villages the *pātidārs* or sharers belong to the Kunbi caste, and on account of being *narvādārs* hold a high position among their fellows, being the descendants of the old proprietary cultivators. This tenure has been preserved by Act V of 1862 of the Bombay Government, but the land tax is levied at survey rates on the whole arable land. The villages on the banks of the river Mahī held on the *mehwāsi* tenure pay their revenue in a lump sum. A clan of Musalmān yeomen, known as the Māliks, have for nearly 400 years held 24 villages on a special tenure.

The District contains 10 municipalities: namely, KAIRA, KAPADVANJ, MEHMADĀBĀD, NADIAD, DAKOR, BORSAD, ANAND, UMRETH, OD, and MAHUDHA. The District board was established in 1863, and there are 7 *tāluka* boards. The total expenditure of all these boards in 1903-4 was 2½ lakhs, of which half a lakh was spent on roads and buildings. The chief source of income is the land cess.

The District Superintendent of police has the assistance of 2 inspectors and 10 chief constables. There are 12 police stations. The force in 1904 numbered 555 men, working under 133 head constables. Six mounted police under one *daffadār* were also maintained. There are 8 subsidiary jails in the District, with accommodation for 187 prisoners The daily average prison population in 1904 was 36, of whom 2 were females.

The District stands fourth among the Districts of the Presidency in the literacy of its population, of whom 9·9 per cent. (17·0 males and 0·9 females) were able to read and write in 1901. In 1855 6 there were only 7 schools attended by 1,036 pupils: by 1876-7 the number of schools had risen to 180 and the number of pupils to 14,720. In 1881 there were 205 schools with 16,107 pupils, who increased to 27,261 by 1891, and numbered 27,911 in 1901. In 1903-4 the District contained 365 schools, of which 84 were private, attended by 17,474 pupils, including 2,581 girls. Besides one high school, there were 14 middle and 266 primary schools. Of the 281 public institutions, one is managed by the Educational department, and 246 by

local or municipal boards, while 30 are aided and 4 unaided. The total expenditure on education in 1903-4 was Rs. 1,85,000, of which Rs. 23,000 was derived from fees. Of the total, 79 per cent. was devoted to primary schools.

In 1904 the District had one hospital and 8 dispensaries, with accommodation for 94 in-patients. The number of patients treated in 1904 was 110,069, including 1,122 in-patients; and 3,675 operations were performed. The expenditure was Rs. 21,000, of which Rs. 15,000 was met from Local and municipal funds. The Irish Presbyterian and Salvation Army Missions have each opened a dispensary at Anand, to which hospitals are shortly to be added.

The number of persons successfully vaccinated in 1903-4 was 17,000, representing a proportion of 24 per 1,000, which is slightly below the average for the Presidency.

[Sir J. M. Campbell, *Bombay Gazetteer*, vol. iii, Kaira and Pānch Mahāls (1879).]

Kaira Town (*Kheda*).—Head-quarters of Kaira District, Bombay, situated in 22° 45′ N. and 72° 41′ E., 7 miles south-west of Mehmadābād station on the Bombay, Baroda, and Central India Railway, and 20 miles south-west of Ahmadābād. Population (1901), 10,392. Kaira is a very ancient place, having a legendary connexion with the Mahābhārata, and is proved by the evidence of copperplate grants to have existed as early as the fifth century A.D. Early in the eighteenth century it passed to the Bābi family, with whom it remained till 1753, when it was taken by the Marāthās under Dāmājī Gaikwār. It was finally handed over to the British by Anand Rao Gaikwār in 1803. Its frontier position rendered Kaira important; and a force of infantry, cavalry, and artillery was stationed there until the transfer, in 1830, of the frontier station to Deesa. The climate is said to have improved of late years. Earthquake shocks were felt in 1860 and 1864. The courthouse is a handsome building with Greek pillars. Near it is a part of the old jail, in 1814 the scene of a riot in which the prisoners rose, and which was only suppressed with a loss of 19 killed and 12 wounded. The municipality was established in 1857, and its income during the decade ending 1901 averaged Rs. 15,000. In 1903-4 the income was Rs. 18,000, chiefly from a house and land tax. Besides the Government revenue offices, the town contains a Sub-Judge's court, a civil hospital, and 6 schools (5 for boys and one for girls), attended by 543 male and 82 female pupils. The boys' schools include an English school with 92 pupils.

Kairāna Tahsīl.—North-western *tahsīl* of Muzaffarnagar District, United Provinces, lying between 29° 19′ and 29° 42′ N. and 77° 2′ and 77° 30′ E., with an area of 464 square miles. It comprises five *parganas*—Kairāna, Jhinjhāna, Shāmli, Thāna Bhawan, and Bidaulī—and

was formerly known as Shāmli. Population increased from 200,157 in 1891 to 224,679 in 1901. The *tahsīl* contains five towns: namely, KAIRĀNA (population, 19,304), the head-quarters, THĀNA BHAWAN (8,861), SHĀMLI (7,478), JALĀLĀBĀD (6,822), and JHINJHĀNA (5,094); and 256 villages. In 1903-4 the demand for land revenue was Rs. 3,86,000, and for cesses Rs. 50,000. The river Jumna forms the western boundary, and the adjoining tract lies low and is intersected by *jhīls* and watercourses. The eastern half of the *tahsīl* is, however, part of the upland tract and is irrigated by the Eastern Jumna Canal. In 1903-4 the area under cultivation was 291 square miles, of which 131 were irrigated.

Kairāna Town.—Head-quarters of the *tahsīl* of the same name in Muzaffarnagar District, United Provinces, situated in 29° 24′ N. and 77° 12′ E. It is the terminus of a metalled road from Muzaffarnagar town. The population is increasing slowly and was 19,304 in 1901. Mukarrab Khān, physician to Jahāngīr and Shāh Jahān, received the town and surrounding country as a grant. He built a *dargāh* and laid out a beautiful garden with a large tank, and the town also contains several mosques dating from the sixteenth and seventeenth centuries. Kairāna is built partly on the low-lying Jumna *khādar* and partly on the rising slope to the upland plain, and has a clean, well-paved bazar. The town was constituted a municipality in 1874. During the ten years ending 1901 the income and expenditure averaged Rs. 12,000. In 1903-4 the income was Rs. 16,000, chiefly derived from octroi (Rs. 12,000); and the expenditure was Rs. 18,000. Ornamental curtains are made here by pasting small pieces of looking-glass on coloured cloth. There is a considerable amount of traffic in grain with both the Punjab and the railway, and a small calico printing industry. Besides the *tahsīlī*, there are a *munsifi*, a dispensary, and two schools.

Kaisarganj.—South-western *tahsīl* of Bahraich District, United Provinces, comprising the *parganas* of Fakhrpur and Hisāmpur, and lying between 27° 4′ and 27° 46′ N. and 81° 16′ and 81° 46′ E., with an area of 679 square miles. Population increased from 332,193 in 1891 to 348,172 in 1901. There are 647 villages, but no town. The demand for land revenue in 1903-4 was Rs. 3,29,000, and for cesses Rs. 75,000. The density of population, 513 persons per square mile, is considerably above the District average. The *tahsīl* lies in the wide valley of the Gogra, and is scored by many old channels, the chief of which are the Sarjū or Suhelī and the Tirhī. The whole area is fertile, except where the Gogra has deposited sand, and irrigation is rarely needed. In 1903-4 the area under cultivation was 443 square miles, of which only 13 were irrigated.

Kaithal Tahsīl.—Western *tahsīl* and subdivision of Karnāl District,

Punjab, lying between 29° 22′ and 30° 12′ N. and 76° 11′ and 76° 47′ E., with an area of 1,289 square miles. The population in 1901 was 265,189, compared with 257,493 in 1891. It contains the towns of KAITHAL (population, 14,408), the head-quarters, and PŪNDRI (5,834); and 413 villages, including PEHOWA, a place of religious importance. The land revenue and cesses amounted in 1903-4 to 2·7 lakhs. The *tahsīl* consists chiefly of the petty principality of Kaithal, which escheated in 1843. North of the Ghaggar, the country is undulating and the soil contains a considerable proportion of sand. The tract between the Ghaggar and the southern limits of the Saraswatī depression consists of vast prairies, flooded during the rains and interspersed with numerous trees and patches of cultivation. This tract, known as the Naili (Nāli), is notoriously unhealthy, but the pasture it affords is invaluable in dry years. The southern half of the *tahsīl* is a level plain, now irrigated by the Western Jumna Canal. On the east is the Nardak. The people have not yet entirely abandoned their pastoral traditions, and large tracts are still used for grazing alone. Farther west, cultivation becomes more general, and in the extreme south-west the soil contains a large proportion of sand.

Kaithal Town.—Head-quarters of the subdivision and *tahsīl* of the same name in Karnāl District, Punjab, situated in 29° 48′ N. and 76° 24′ E., 38 miles west of Karnāl town, and the terminus of the Kaithal branch of the Southern Punjab Railway. Population (1901), 14,408. Kaithal is picturesquely situated on an extensive tank, which partly surrounds it, with numerous bathing-places and flights of steps. It lies in KURUKSHETRA, and is said to have been founded by the hero Yudhishthira. It bore in Sanskrit the name of Kapisthala, or the 'abode of monkeys,' and possesses an *asthān* or temple of Anjni, mother of Hanumān, the monkey god. During the time of the earlier Muhammadan emperors it was a place of some importance, and Timur, who says its inhabitants were fire-worshippers, halted here before he attacked Delhi in 1398. The tombs of several saints, the oldest of which is that of the Shaikh Salāh-ud-dīn of Balkh (A.D. 1246), show that it was a centre of Muhammadan religious life. The town was renovated, and a fort built, under Akbar. In 1767 it fell into the hands of the Sikh chief, Bhai Desu Singh, whose descendants, the Bhais of Kaithal, ranked among the most powerful of the Cis-Sutlej chiefs. Their territories lapsed to the British Government in 1843, when Kaithal became the head-quarters of a District; but in 1849 this was absorbed into Thānesar District, which was in turn included in that of Karnāl in 1862. The now somewhat dilapidated fort or palace of the Bhais stands out prominently on the bank of the tank. The municipality was created in 1867. The income and expenditure during the ten years ending 1902-3 averaged Rs. 19,900 and Rs. 20,400 respectively.

In 1903-4 the income was Rs. 15,800, chiefly derived from octroi; and the expenditure was Rs. 17,400. It maintains a dispensary and an Anglo-vernacular middle school. Saltpetre is refined at Kaithal, and it has a considerable manufacture of lacquered wood, besides two cotton factories, one for ginning and the other for ginning and pressing. The number of employés in the factories in 1904 was 103.

Kākar.--*Tāluka* of Lārkāna District, Sind, Bombay, lying between 26° 53′ and 27° 14′ N. and 67° 12′ and 67° 57′ E., with an area of 445 square miles. The population in 1901 was 49,252, compared with 47,888 in 1891. The *tāluka* contains 73 villages, of which Khairpur Nathan Shāh is the head-quarters. The density, 111 persons per square mile, is slightly below the District average. The land revenue and cesses in 1903-4 amounted to 2·1 lakhs. The *tāluka* depends for irrigation on the Western Nāra Canal, but suffers from its position at the lower end of the canal, the waters of which are largely exhausted by the northern *tālukas*. The western portion depends upon rain and a few hill-torrents for cultivation. *Jowār* is the principal crop.

Kākorā.—Village in the District and *tahsīl* of Budaun, United Provinces, situated in 27° 53′ N. and 79° 3′ E., near the bank of the Ganges, 12 miles south-west of Budaun town. Population (1901), 2,941. The place is noted for a religious and trading fair held at the full moon of Kārtik (October–November), which is attended by as many as 100,000 to 200,000 persons, who come from all parts of Rohilkhand, as well as from Delhi, Muttra, and Cawnpore. The principal object is bathing, but a good deal of trade is carried on in cloth, metal goods, leather, and cattle. The actual site of the fair varies within a few miles according to the movements of the river

Kākori. Town in the District and *tahsīl* of Lucknow, United Provinces, situated in 26° 52′ N. and 80° 48′ E., near a station on the Oudh and Rohilkhand Railway. Population (1901) 8,933. Kākori is said to have been originally inhabited by Bhars and was subsequently included in BAISWARA. It was granted to Muhammadans by Husain Shāh of Jaunpur. Several tombs of noted saints are situated in the town and its environs. Some of the Shaikh families residing here are of antiquity and position, and their members include many of the Lucknow pleaders, who have adorned the town with well-built houses, while others are engaged in Government service. Kākori is administered under Act XX of 1856, with an income of about Rs. 1,300. There are two schools with about 110 pupils

Kakrālā. Town in the Dātāganj *tahsīl* of Budaun District, United Provinces, situated in 27° 53′ N. and 79° 12′ E., 12 miles south of Budaun town. Population (1901), 5,954. The name is said to have been derived from *kankar* or nodular limestone, which is largely found in the neighbourhood. In April, 1858, General Penny defeated near

Kakrālā a party of Ghāzīs or fanatical Musalmāns, who were lying in ambush for him. This victory put an end to the rebel government which had ruled at Budaun for eleven months. The town contains a *sarai*, and a branch of the American Methodist Mission. It is administered under Act XX of 1856, with an income of about Rs. 1,000. The primary school has 75 pupils.

Kālābāgh.—Small cantonment in Hazāra District, North-West Frontier Province, situated in 34° 6′ N. and 73° 25′ E., on the road between Abbottābād and Murree. During the summer months it is occupied by one of the British mountain batteries which are stationed at Rāwalpindi in the winter.

Kālābāgh Estate.—Estate in the District and *tahsīl* of Miānwāli, Punjab, with an area of 107 square miles. It is held by Muhammad Khān Malik Yār, the Awān Malik of Kālābāgh. Over 300 years ago the Awān Maliks settled at Dhankot, a natural fastness on the Indus above Kālābāgh. They forced the Bhangi Khel Khattaks of the hills on the north to pay tribute, and at the close of the eighteenth century were recognized as chiefs of the Kālābāgh territory by Tīmūr Shāh Durrāni. The Sikhs annexed the estate in 1822, but Malik Allah Yār Khān retained it as their feudatory. He assisted Lieutenant (afterwards Sir Herbert) Edwardes to construct the Dalīpnagar fort at Bannu, and his son Muzaffar Khān was taken prisoner there by the Sikhs in the second Sikh War. During the Mutiny he raised 100 men and was entrusted with the charge of one of the gates of Peshāwar city, receiving the title of Khān Bahādur as a reward. The present Malik, Yār Muhammad Khān, succeeded in 1885. He holds a *jāgīr* worth Rs. 6,000, and his income is about Rs. 22,000 a year, of which Rs. 1,000 is derived from the manufacture of alum.

Kālābāgh Town.—Town in the Isa Khel *tahsīl* of Mianwāli District, Punjab, situated in 32° 58′ N. and 71° 33′ E. Population (1901), 5,824. The town is picturesquely situated at the foot of the Salt Range, on the right bank of the Indus, at the point where the river debouches from the hills, 105 miles below Attock. The houses nestle against the side of a precipitous hill of solid rock-salt, piled one upon another in successive tiers, the roof of each tier forming the street which passes in front of the row immediately above. Long before the British annexation of the Punjab, Kālābāgh was famous for its salt; and some of the wonders told of it by travellers as long ago as 1808 may still be seen in its houses built of and on rock-salt, its roads cut out of the solid salt rock, and its immense exposures of salt, sometimes closely resembling alabaster. The Kalābāgh hills are a continuation of the cis-Indus portion of the Salt Range, but are remarkable for the quantity of salt exposed, and the purity, closeness of grain, and hardness of a great proportion of it. Unlike the operations elsewhere in

the Salt Range, which are purely mining, the salt is here quarried at the surface. There are twelve quarries, some situated on the right bank of the Indus, and some on the right bank of the Lūn Nullah, which runs into the Indus on its right bank, at the base of a hill known as the Saudāgar hill. Enormous quantities of salt lie exposed here, underlying Tertiary strata, in workable seams of from 4 to 20 feet thick, alternating with seams of impure salt and marl. The deposits rise to a height of about 200 feet above the bed of the Gor gorge, the seams striking south to north and dipping to the west at an angle of about 70°. The salt is slightly better in quality than that of the Mayo and Warcha Mines, and is in high favour with traders; but it is handicapped in competition with those salts, because the Indus lies between it and the Māri station of the Kundiān-Campbellpore Railway. The quarries lie from half a mile to a mile from the sale dépôt at Kukrānwāla Vandah on the right bank of the Indus, where the miners deliver the salt at the rate of Rs. 4-2 per 100 maunds. The whole of the operations connected with the salt up to the time that it is deposited in store in the dépôt are in the hands of the miners. At the dépôt the salt is weighed out to purchasers and cleared under the supervision of the inspector in charge. The total quantity issued in 1903-4 amounted to 191,750 maunds, of which 150,062 maunds were removed by rail and 32,161 by river. Alum also occurs in the neighbouring hills, and forms a considerable but decreasing item of local trade, the out-turn in 1904 being about 3,500 maunds, which sold for Rs. 3 per maund (82$\frac{2}{7}$ lb.). The town possesses a manufacture of striped cloth (*sūsi*), and of iron instruments and vessels from metal imported from the Kānigoram hill.

The municipality was created in 1875. The income and expenditure during the ten years ending 1902-3 averaged Rs. 7,100 and Rs. 6,600. In 1903-4 the income was Rs. 5,600, chiefly derived from octroi; and the expenditure was Rs. 6,700. The town contains a dispensary and a municipal primary school. An Awān family, which resides in Kālābāgh, has a certain supremacy over the whole of the tribesmen, the representative of the family bearing the title of Malik.

Kalabgūr.—*Tāluk* in Medak District, Hyderābād State, with an area of 432 square miles. The population in 1901, including *jāgīrs*, was 78,052, compared with 96,100 in 1891, the decrease being due to emigration and transfer of villages. The *tāluk* contains one town, SADASEOPET (population, 6,672); and SANGAREDDIPET (4,609) is the head-quarters of the District and *tāluk*. There are also 144 other villages, of which 60 are *jāgīr*. The land revenue in 1901 was 2.4 lakhs. Kalabgur is well supplied with tanks, and rice and sugar-cane are largely cultivated. The Nizām's State Railway passes through its southern portion, and the river Mānjra flows through the north.

Kālā-Chitta.—Mountain range in the Pindi Gheb *tahsīl* of Attock District, Punjab, having the general form of a wedge or triangle, whose base rests upon the left bank of the Indus, near the township of Nāra, while its apex stretches to the Margala pass, about 50 miles to the eastward. The broadest portion has a depth of about 12 miles. The range is formed of two portions differing much in appearance. The south-western part, stretching for 35 miles from the Indus through the Pindi Gheb *tahsīl*, known as the Kālā Pahār or 'black mountain,' is generally formed of very dark sandstone, often quite purple in hue, and sometimes blackened by exposure to the weather. Mixed with this are grey sandstone and red clay. The Chitta or 'white' hill runs the whole length of the northern side of the range. It is formed of white Nummulitic limestone, but dark limestone also crops up in its midst; it is by far the more valuable part of the range, the limestone being used for burning, and the forest produce being far better than in the Kālā. Bushes of acacia and wild olive are scattered over its rugged sides, but on the main portion a coarse grass forms the only vegetation.

Kaladan.—River of Burma, which rises in the Chin Hills in the Yahow country, and is there known as the Boinu. Its course at first is southwards, then northwards. Bending westwards, it passes through a portion of the Lushai Hills, and then turning south again, enters Northern Arakan at its northern end, and flows down the western side of the District, past Paletwa, the head-quarters, which lies on its western bank. Farther south it enters Akyab District and, continuing in a southerly direction, empties itself after a course of nearly 300 miles into the Bay of Bengal at Akyab, where its estuary is 6 miles in breadth. It is a picturesque river, navigable for steam traffic as high as Paletwa, nearly 100 miles from the sea. Its principal tributaries are the Dalet, Palet, Mi, and Pi.

Kalādgi.—Village in the Bāgalkot *tāluka* of Bijāpur District, Bombay, situated in 16° 12′ N. and 75° 30′ E., on the right bank of the Ghatprabha river, 15 miles west of Bāgalkot on the Southern Mahratta Railway. Population (1901), 4,946. Kalādgi was formerly the chief station of the District and a cantonment. The municipality, established in 1866, was abolished after the removal of the head quarters in 1885.

Kālāhandī.—Feudatory State in Bengal, lying between 19° 3′ and 20° 28′ N. and 82° 32′ and 83° 47′ E., and formerly known as Karond. It is bounded on the north by the Patnā State, on the north-west by Raipur District, and on the east, south-east, and south-west by the Jeypore *zamīndāri* of Vizagapatam District. The area of the State is 3,745 square miles; and its head-quarters are at Bhawāni Patnā, a village of 4,400 inhabitants, 140 miles from Sambalpur and 130 from

Chicacole station on the East Coast Railway. From the north-east to the south-west of the State runs an almost continuous range of hills, a part of the Eastern Ghāts, with several peaks approaching 4,000 feet in elevation. To the north of this range lies a stretch of comparatively open country interspersed with low hills. The uplands are generally well wooded, except in tracts where the forest has been burnt off for cultivation. The Indrāvati river rises in the south of the State and passes into Bastar after a short course through the hills. The open country is drained by the Tel river and its affluent the Hatti.

The ruling family are Nāgvansi Rājputs, and are said to be connected with the Satrangarh Rājās of Chotā Nāgpur. The State appears to have existed from a remote period without being subject to any definite suzerainty. The payment of tribute and acknowledgement of their supremacy were, however, imposed by the Marāthās. In 1878 the chief, Udit Pratāp Deo, obtained an hereditary salute of 9 guns. In 1881, on the death of Udit Pratāp Deo, discontent broke out among the primitive Khond tribe, who form a large proportion of the population. The late Rājā had encouraged the immigration of members of the Koltā caste, who are excellent agriculturists and keenly acquisitive of land; and many of the Khond headmen and tenants had been ousted by them. The smouldering grievances of the Khonds had been suppressed by Udit Pratāp, but they now found expression in acts of plunder. A British officer was dispatched to Kālāhandī to inquire into their complaints, and a settlement was arrived at, which it was thought would prove satisfactory. These hopes, however, were illusory and in May, 1882, the Khonds rose and slaughtered more than 80 Koltās, while 300 more were besieged in the village of Norlā, the Khonds appearing with portions of the scalps and hair of the murdered victims hanging to their bows. On the arrival of a body of police, which had been summoned from Vizagapatam, they dispersed, and the outbreak was soon afterwards suppressed, seven of the ringleaders being arrested, tried, and hanged. A settlement was made of the grievances of the Khonds, and the tranquillity of the State has not again been disturbed. The next chief, Raghu Kishor Deo, was installed in 1894 on attaining his majority, but was murdered in 1897 by a servant. He left an infant son of two years of age, Brij Mohan Deo, who is now being educated at Bhawāni Patnā. During his minority the management of the State is in charge of a Political Agent subordinate to the Commissioner of Orissa.

The population in 1901 was 350,529, having increased by 7 per cent. during the previous decade. The number of inhabited villages is 2,198, and the density of population 94 persons per square mile. About 81 per cent. of the population speak Oriyā and 15 per cent. Khondi, the language of the Khond tribe. Khonds number 103,000,

or 29 per cent. of the total; and next to them the most numerous castes are Gahrās or Ahīrs, Doms, a menial caste of sweepers, and Gonds. There is a very slight sprinkling of Telugu castes.

Along the base of the hills is found a light alluvial soil, fertile and easily tilled, and yielding good crops of almost any grain. The open country is covered by black cotton soil mixed with limestone nodules and with the yellow clay or gravel formed from metamorphic rock. The hilly country on the south and east, amounting to 62 per cent. of the whole State, has not been surveyed. Of the remaining land, 632 square miles, or 45 per cent. of the available area, are occupied for cultivation, and 437 were cultivated in 1904. The staple crops are rice, covering 285 square miles; *til*, 68; and *kodon* and *kutkī*, 22. The State contains 1,464 tanks, from which 289 square miles can be irrigated. The numerous streams flowing from the hills also afford natural irrigation to land lying on their banks, and soil in this position gives two crops in the year. Oranges and plantains are grown on irrigated land. The prevailing forest tree in the north of the State is *sāl* (*Shorea robusta*), teak being rare and local. With the *sāl* are associated the other common trees of Peninsular India. Farther to the south between the Tel and Indrāvati, where a range of hills intervenes, the *sāl* disappears and *sāj* (*Terminalia tomentosa*) is the commonest tree. Owing to the distance of the forests from the railway, exports of timber are inconsiderable. No minerals are worked, but graphite occurs in veins and pockets in the metamorphic rocks. The State contains 48 miles of gravelled and 116 of embanked roads. The principal routes are those from Bhawāni Patnā to Raipur, and to Sambalpur through Bolāngir in Patnā, and from Jūnāgarh to Rājim through Deobhog. Exports are sent principally to Raipur and the Madras Presidency, while imports are received from Raipur, Sambalpur, and Madras.

The total revenue in 1904 was Rs. 1,11,000, the principal items being land revenue and cesses, Rs. 59,000: forests, Rs. 14,000: and excise, Rs. 24,000. The unsurveyed territory on the south and east is comprised in six minor *zamīndāri* estates, and a hilly tract called Dongurlā, mainly occupied by Khonds who practise shifting cultivation. The revenue paid by the *zamīndārs* is Rs. 3,500. Two of the *zamīndāri* families are related to the chief. The remaining area has been cadastrally surveyed and a settlement effected. The taxation of land is about 8 annas per cultivated acre. About Rs. 30,000 of the gross land revenue has been assigned in revenue-free grants. The total expenditure in 1904 was Rs. 1,36,000, the principal items being tribute, Rs. 12,000; allowances to the ruling family, Rs. 20,000; general administration, Rs. 14,000; and police, Rs. 18,000. The tribute is liable to revision. In twelve years since 1893 the State has expended 3·23 lakhs on public

works under the supervision of the Engineer of the Chhattīsgarh States division. The works carried out include, besides the roads mentioned, the construction of a palace, public offices, a hospital, police station, school, and *sarai* at Bhawāni Patnā. The educational institutions comprise 48 schools with 3,876 pupils, including one English and two vernacular middle schools and a girls' school. The total expenditure on education in 1904 was Rs. 7,000. At the Census of 1901, 6,129 persons were returned as able to read and write, the proportion being 1·7 per cent. (3·3 males and 0·1 females). Dispensaries have been established at Bhawāni Patnā, Jūnāgarh, Kāshīpur, and Thuāmāl, and a separate dispensary for females at Bhawāni Patnā. About 63,000 persons were treated in these institutions in 1904.

Kālahasti Zamīndāri.—One of the largest *zamīndāri* estates in Madras, situated partly in North Arcot District, partly in Nellore, and partly in Chingleput. Number of villages, 406 in North Arcot, 201 in Nellore, and 206 in Chingleput: area, 638 square miles in North Arcot, 576 in Nellore, and 250 in Chingleput: total population (1901), 223,327. The capital is KĀLAHASTI TOWN, where the *zamīndār* resides. The history of the family, which belongs to the Velama caste, is obscure. The original owner of the estate probably received it from a king of the Vijayanagar dynasty in the fifteenth century, on condition of maintaining order. The estate at one time spread as far as the site of Fort St. George, and the Company obtained the land on which Madras now stands from the proprietor in 1639. The settlement is traditionally said to have been named Chennappapatnam in honour of the *zamīndar's* father. The estate came under British control in 1792, and a formal grant to the family was made in 1801. The *zamīndār* afterwards received the hereditary title of Rājā. The gross income amounts to over 5 lakhs. The *peshkash* (or permanent revenue paid to Government) for the whole of it is 1·7 lakhs, and the demand for land cess amounts to Rs. 35,000. Owing to the estate being heavily encumbered, it was recently taken under the management of the Court of Wards, but it has now been handed back to the proprietor. The estate is in a great measure covered by scrub jungle, especially the portion in North Arcot District. Much firewood is sent to Madras city from these forests; and leopards, bears, and small game are fairly numerous in them. A large number of the jungle tribes of Irulas and Yanadis subsist by gathering honey, roots, and bark for sale in the neighbouring villages. The soil is not very rich, but about 140,000 acres are under cultivation.

Kālahasti Tahsīl.—*Zamīndāri tahsīl* in the Kālahasti *zamīndāri* in the north-east of North Arcot District, Madras, lying between 13° 14′ and 13° 55′ N. and 79° 27′ and 79° 59′ E. Area, 638 square miles; population in 1901, 94,132, compared with 81,860 in 1891

The *tahsīl* contains 324 villages and one town, KĀLAHASTI (population, 11,992), the head-quarters. Demand for *peshkash* and land cess in 1903–4, Rs. 78,000.

Kālahasti Town.—Head-quarters of the *tahsīl* of the same name in North Arcot District, Madras, situated in 13° 45′ N. and 79° 42′ E., with a station on the South Indian Railway, on the right bank of the Swarnamukhi at the extremity of the Nagari hills. Population (1901), 11,992. It is the residence of the Rājā of Kālahasti, and the head-quarters of the deputy-*tahsīldār* and sub-magistrate. A large number of the inhabitants are in the employ of the *zamīndār*, whose residence, an imposing-looking building, faces the eastern street of the old town. The approach to the town from the river is through the last gap in the Nagari hills, which are here considered so holy that the quarrying of stone or gravel is forbidden. Kālahasti is a thriving town, carrying on a brisk trade in grain, bangles, and many other articles. A good deal of cotton stuff is woven in the suburbs, and the hand-printed and hand-painted cotton fabrics enjoy a high reputation. Some of the latter gained a bronze medal at the Delhi Darbār Exhibition of 1903. The town is famous for its Siva temple, wherein a festival takes place annually during February and March.

Kalait.—Village in the Narwāna *tahsīl*, Karmgarh *nizāmat*, Patiāla State, Punjab, situated in 21° 49′ N. and 76° 19′ E., 13 miles southwest of Kaithal on the Narwāna-Kaithal branch of the Southern Punjab Railway. Population (1901), 3,490. The place is famous for four ancient temples ascribed to Rājā Sālbāhan, and for a tank, called Kapāl Manī's *tīrath*, which is held sacred by Hindus. The temples, which are adorned with sculptures, are supposed to date from the eleventh century.

Kalale.—Village in the Nanjangūd *tāluk* of Mysore District, Mysore, situated in 12° 4′ N. and 76° 40′ E., 3 miles south-west of Nanjangūd. Population (1901), 2,500. The place is historically interesting as the ancestral domain of the Dalavāyis of Mysore. It is said to have been founded in 1504 by a connexion of the Vijayanagar family. After the Mysore Rājās acquired Seringapatam in 1610, they formed an alliance with the Kalale family, by which the latter furnished the Dalavāyi, or hereditary minister and general of the State, while Mysore furnished the Kartar ('Curtur' in old English documents) or ruler. Latterly the Dalavāyis rendered the Rājās subservient to their interests, but were in their turn displaced by Haidar Alī. The municipality formed in 1899 was converted into a Union in 1904. The receipts and expenditure during the two years ending 1901 averaged Rs. 1,990 and Rs. 650. In 1903–4 they were Rs. 870 and Rs. 2,800.

Kalam.—Crown *tāluk* in the north of Osmānābād District, Hyderābād State. The population in 1901 was 38,030, and the area

303 square miles; but in 1905 the Wāsi *tāluk* was incorporated in it. The total area is now 658 square miles, of which the population in 1901 was 87,701, compared with 120,081 in 1891, the decrease being due to the famine of 1900. The river Mānjra separates the *tāluk* from Bhīr District on the north, and the soil is chiefly *regar*, with some alluvium. It contains 151 villages and yields a land revenue of 3·7 lakhs. The *jāgīr tāluks* of Bhūm and Wālwad lie to the west with 31 and 13 villages, and populations (1901) of 11,416 and 6,997 respectively. Their areas are about 143 and 61 square miles.

Kalam.—Village in the District and *tāluk* of Yeotmāl, Berār, situated in 20° 27′ N. and 78° 22′ E. Population (1901), 3,595. Kalam was formerly an important fortress; and in 1425 the Bahmani king, Ahmad Shāh Walī, captured it from the 'infidels,' probably Gonds of Chānda or Kherla, into whose hands it had fallen. Kalam and Māhūr were the most important fortresses in the south-eastern corner of Berār at that time. In the *Ain-i-Akbarī* Kalam is mentioned as the head-quarters of a *sarkār* or revenue district. It has a remarkable underground temple dedicated to Chintāman.

Kalamnūri.—North-eastern *tāluk* of Parbhani District, Hyderābād State, with an area of 538 square miles. Including *jagīrs*, the population in 1901 was 58,835, compared with 84,685 in 1891, the decrease being due to the famine of 1900. The *tāluk* had till recently 186 villages, of which 11 were *jāgīr*; and Kalamnūri (population, 4,267) is the head-quarters. The land revenue in 1901 was 1·9 lakhs. In 1905 a few villages were added from Nānder District. The Pengangā flows on the north-eastern border, separating the *tāluk* from the Bāsim District of Berār.

Kalānaur (1). Town in the District and *tahsīl* of Gurdāspur, Punjab, situated in 32° 0′ N. and 75° 10′ E., 15 miles west of Gurdāspur town. Population (1901), 5,251. It was the chief place in the neighbourhood from the fourteenth to the sixteenth century, and was twice attacked by Jasrath Khokhar, once after his unsuccessful assault on Lahore in 1422, and again in 1428, when Malik Sikandar marched to relieve the place and defeated Jasrath on the Beās. It was here that Akbar received the news of his father's death. He promptly had himself installed on a *takht* or throne, still to be seen outside the town. Akbar had to retake Kalānaur from Sikandar Shāh Sūr in the following year, and resided here for several months. It was plundered by Banda, the Sikh leader, early in the eighteenth century. The municipality was created in 1867. The income during the ten years ending 1902-3 averaged Rs. 5,100, and the expenditure Rs. 5,000. The income and expenditure in 1903-4 were Rs 5,400, the receipts being chiefly from octroi. The municipality maintains a vernacular middle school and a dispensary.

Kalānaur (2).—Town in the District and *tahsīl* of Rohtak, Punjab, situated in 28° 50′ N. and 76° 24′ E., 12 miles west of Rohtak town on the road to Bhiwāni. Population (1901), 7,640. It was founded by Kalīān Singh and Bhawān Singh, two Ponwār Rājputs, sons-in-law of Anang Pāl, the king of Delhi, and named after the former. Kalānaur remained in the possession of their descendants, who, though dispossessed for a time by the Balochs of Farrukhnagar, were reinstated by the Delhi court. The town is famous for its leather-work, especially saddlery. It has a vernacular middle school.

Kalang.—An offshoot of the Brahmaputra in Assam, which leaves the main stream about 10 miles east of Silghāt, and, after a tortuous course of about 73 miles through Nowgong District, rejoins it on the confines of Kāmrūp. In the upper part of its course the Kalang receives the rivers which flow from the western watershed of the Mikīr Hills, while the KAPILI, with its affluents the Jamunā and Doiāng, the Barpāni, and the UMIĀM bring to it the drainage of North Cāchār and of the Khāsi and Jaintiā Hills. The DIGRU, another considerable river, joins it near its western mouth. Through the greater portion of its length the banks of the Kalang are lined with villages, the most important of which are Kahābar, Sāmaguri, Purānigudām, Nowgong, the District head-quarters, and Rahā; but at its western end the country through which it passes lies too low for cultivation, and the banks of the river are covered with dense jungle grass. A sandbank at its eastern end is a serious obstacle to traffic during the dry season, but in the rains a steamer of low draught plies between Nowgong and Silghāt, and carries away the tea collected at various centres. Country boats come up from Gauhāti at all seasons of the year for the transport of mustard, which is grown in large quantities in this portion of the Province. In the dry season the Kalang is fordable at Nowgong and Rahā, but after its junction with the Kapili there is always a considerable depth of water in the channel. Ferries have been established across the river at Kuwarital, Nowgong, Rahā, and Jāgi.

Kalanga.—Hill in Dehra Dūn District, United Provinces, situated in 30° 20′ N. and 78° 5′ E. A fort was hastily thrown up here by the Gurkhas on the outbreak of the war of 1814. It is perched on a low spur of the Himālayas, 3½ miles north-east of Dehra, and was attacked in 1815 by General Gillespie, who fell while leading the storming party; for a time it was desperately defended, but the enemy evacuated it after a second assault, and the British demolished it shortly after. A plain white stone monument commemorates those who fell at the taking of the fort. On the slope of the hill is a village called Nālāpāni, near which is a celebrated spring that forms part of the water-supply of Dehra.

Kalasa.—Village in the Mudgere *tāluk* of Kadūr District, Mysore,

situated in 13° 14′ N. and 75° 22′ E., on the Bhadra river, 24 miles north-west of Mudgere town. The village lies in a valley, surrounded by lofty hills, to the south of Mertiparvat, also known as the Kalasa hill. There is a large temple of Kalasesvara, containing thirteenth-century copper grants by Jain queens, and surrounded by fifteenth and sixteenth-century stone inscriptions of the Bhairarasa Wodeyar rulers of Kārkala under Vijayanagar. It was probably a Jain temple originally. Mounds covering ruins of a large town lie on all sides. The original Sāntara kingdom of Pomburchcha extended into the kingdom of Kalasa above the Ghāts and Karkala below the Ghāts. Kalasa is called a 'three thousand' kingdom. In the seventeenth century it was absorbed into the Keladi territory. In a sacred bathing-place on the river, called Ambātīrtha, is a large square boulder, placed horizontally on another, and bearing an inscription that it was brought and placed there with one hand by Madhvāchārya. This was the founder of the Mādhva sect of Brāhmans, who lived from 1238 to 1317. The areca-nuts produced in the neighbourhood are reckoned the best in Mysore.

Kālastri.—*Zamindāri tahsil*, estate, and town in North Arcot District, Madras. *See* KĀLAHASTI.

Kalāt State.—Native State in Baluchistān, lying between 25° 1′ and 30° 8′ N. and 61° 37′ and 69° 22′ E., with a total area of 71,593 square miles. It occupies the whole of the centre and south-west of the Province, with the exception of the indentation caused by the little State of Las Bela. It is bounded on the west by Persia; on the east by the Bolān Pass, the Marri and Bugti hills, and Sind; on the north by the Chāgai and Quetta-Pishīn Districts; and on the south by Las Bela and the Arabian Sea. With the exception of the plains of Khārān, Kachhi, and Dasht in Makrān, the country is wholly mountainous, the ranges being intersected here and there by long narrow valleys. The principal mountains are the CENTRAL BRĀHUI, KĪRTHAR, PAB, SIĀHĀN, CENTRAL MAKRĀN, and MAKRĀN COAST RANGES, which descend in elevation from about 10,000 to 1,200 feet. The drainage of the country is almost all carried off to the southward by the NĀRI, MŪLA, HAB, PORĀLI, HINGOL, and DASHT rivers. The only large river draining northwards is the RAKHSHĀN. The coast-line stretches for about 160 miles, from near Kalmat to Gwetter Bay, and the chief port is PASNI. Round GWĀDAR the country is in the possession of the Sultān of Maskat.

Physical aspects.

The geological groups in the State include Liassic; Jurassic (lower and upper Cretaceous strata); volcanic rocks of the Deccan trap; Kīrthar (middle eocene); lower Nāri (upper eocene), and Siwālik beds (middle and upper miocene), besides extensive sub-recent and recent deposits. The State also includes a portion of the Indus alluvial plain.

The botany of the north differs entirely from that of the south. In the former the hill slopes occasionally bear juniper, olive, and pistachio; poplars, willows, and fruit trees grow in the valleys; herbaceous and bulbous plants are frequent on the hill-sides; and in the valleys southernwood (*Artemisia*) and many *Astragali* occur. In the latter the vegetation consists of a thorny unpleasant scrub, such plants as *Capparis aphylla*, *Prosopis spicigera*, *Calotropis procera*, *Acanthodium spicatum*, and *Acacia* being common. The dwarf-palm (*Nannorhops Ritchieana*) affords a means of livelihood to many of the inhabitants.

Sind ibex and mountain sheep occur, but are decreasing in numbers. 'Ravine deer' (gazelle) are common. Bears and leopards are seen occasionally. The wild ass is found in the western desert. *Sīsī* and *chikor* are abundant in the higher hills.

The climatic conditions vary greatly. Along the coast conditions are intermediate between those of India and the Persian Gulf. Farther inland great heat is experienced during summer, and the cold season is short. Kachhi is one of the hottest parts of India. Round Kalāt, on the other hand, the seasons are as well marked as in Europe; the temperature in summer is moderate, while in winter severe cold is experienced and snow falls. All the northern parts depend on the winter snow and rain for cultivation; in the south most of the rain falls in the summer; everywhere it is irregular, scanty, and local.

History.

The history of the State has been given in the historical portion of the article on BALUCHISTĀN. After being held successively by Sind, by the Arabs, Ghaznivids, Ghorids, and Mongols, and again returning to Sind in the days of the Sūmras and Sammas, it fell under the Mughal emperors of Delhi. The Ahmadzai power rose in the fifteenth century and reached its zenith in the eighteenth, but it was always subject to the suzerainty of Delhi or Kandahār. After the first Afghān War Kalāt came under the control of the British—a control which was defined and extended by the treaties of 1854 and 1876.

The most interesting archaeological remains in the country are the Kausi and Khusravi *kārez* in Makrān, and the ubiquitous stone dams known as *gabrbands* or 'embankments of the fire-worshippers.' Mounds containing pottery are frequent, and Buddhist remains have been found in Kachhi.

Population.

KALĀT TOWN is the capital of the State. Other towns of importance are Bhāg, Gandāva, Māstung, PASNI, and GWĀDAR. Permanent villages number 1,348, or one to 53 square miles; the majority of the population live in mat huts or in blanket tents. The State is divided into five main divisions: KACHHI, SARAWĀN, JHALAWĀN, MAKRĀN, and KHĀRĀN, the latter being quasi-independent. The population, which numbers (1903) 470,336, consists chiefly of

Brāhuis and Baloch, but also includes Jats, who are cultivators in Kachhi; Darzādas and Nakībs, the cultivating class of Makrān; Loris, who are artisans; Meds and Koras, who are fishermen and seamen; and servile dependants. The traders consist of Hindus and a few Khojas on the coast. The majority of the people are Sunni Muhammadans, but, in the west, many belong to the sect called Zikri. Except in Makrān and Khārān, the people are organized into tribes, each of which acknowledges the leadership of a chief. Besides these tribesmen, who form the BRĀHUI confederacy with the Khān of Kalāt at its head, a distinct body is found in the Khān's own *ulus* or following, consisting of the cultivators in those portions of the country from which the Khān collects revenue direct. They are chiefly Dehwārs and Jats. Agriculture, flock-owning combined with harvesting, and fishing constitute the means of livelihood of most of the population. Brāhuī, Baluchī, Dehwārī, and Sindī are the languages chiefly spoken.

The soil is sandy in most places; here and there alluvial deposits occur and a bright red clay, which gives place in Makrān to the white clay known as *milk*. Permanent irrigation is possible only in a few favoured tracts; elsewhere, the country depends almost entirely on flood cultivation from embankments. In irrigated tracts the supply of water is obtained from *kārez*, springs, and rivers. The staple food-grains consist of wheat and *jowār*. In Makrān the date is largely consumed. Rice, barley, melons, millets, tobacco, lucerne, potatoes, and beans are also cultivated. The commonest tree in the orchards is the pomegranate; and apricots, almonds, mulberries, vines, and apples are also grown. Experiments in sericulture are being made at Mastung.

An excellent breed of cattle comes from Nāri in Kachhi. The Sarawān country and Kachhi produce the best horses in Baluchistān. The State possessed 783 branded mares in 1904. Large donkeys are bred near Kalāt town, and those in Makrān are noted for their speed. Sheep and goats are very numerous. The sheep's wool, of which large quantities are exported, is coarse and comes into the market in a deplorable condition of dirt. The goats are generally black. Camels are bred in large numbers in Kachhi, the Pab hills, and Khārān, and animals for transport are available almost everywhere. All households keep fowls. The better classes breed good greyhounds for coursing. The fishing industry on the Makrān coast is important and capable of development. Air-bladders, shark-fins, and salted fish are exported in large quantities.

Very little money circulates in the country, both rents and wages being usually paid in kind, and most of the tribesmen's dealings are carried on by barter. Owing to the inhospitable nature of the country,

the people are very poor. The standard of living has risen slightly of recent years, and the people are now better clothed than formerly. A Brāhui will never beg in his own country. With the Makrānis mendicancy, which is known as *pindag*, is extremely common.

No arrangements for forest 'reservation' exist in the State; here and there, however, tribal groups preserve special grounds for grass and pasturage. Among minor forest products may be mentioned cumin seed, asafoetida, medicinal drugs, the fruit of the pistachio, bdellium, and gum-arabic. Few minerals have been discovered, and coal alone, which occurs in the Sor range in the Sarawān country, is systematically worked. Traces of coal have been found elsewhere in the Sarawān country. Ferrous sulphate is obtainable in the Jhalawān country, and lead was at one time worked at Sekrān in the same area. Good earth-salt, known as *hāmūn* or *kap*, is obtainable from the swamps, and is also manufactured by lixiviation.

Trade and communications.

Coarse cotton cloth is woven in Kachhi and articles of floss silk are made in Makrān. All Brāhui women are expert with the needle, and the local embroidery is both fine and artistic. Rugs, nose-bags, &c., woven by nomads in the *darī* stitch, are in general use. The art of making pile-carpets is known here and there. Durable overcoats (*shāi*) are made by the women from dark sheep's wool. Leather is embroidered in Kachhi, Kalāt, and Mastung. Matting, bags, ropes, and other articles are manufactured from the dwarf-palm.

Commerce is hampered by the levy of transit dues and octroi, both by the State and by tribal chiefs, and by the expense of camel-transport. The chief centres of trade are Kalāt, Mastung, Gandāva, Bhāg, Turbat, Gwādar, Pasni, and Nāl. The exports consist of wool, *ghī*, raw cotton, dates, salted fish, matting, medicinal drugs, and cattle, in return for which grain, piece-goods, metals, and silk are imported. From the north the traffic goes to Quetta; from the centre to Kachhi and Sind; and from the south and west by sea and land to Karāchi.

The North-Western Railway traverses the east and north-east of the State. The only cart-road is that from Quetta to Kalāt town. All other communications consist of tracks for pack-animals, the most important of which are those connecting Kalāt with Panjgūr, Kalāt with Bela via Wad, and Kachhi with Makrān via the Mūla Pass. A track is now in course of construction from Pasni on the coast to Panjgūr. A postal service to Kalāt is maintained by the British Government, and letters are carried thence once a week to Khuzdār. The British India Company's mail steamers touch at Pasni and Gwādar on alternate weeks, and mails are carried from Pasni to Turbat, the head-quarters of Makrān. The Indo-European Telegraph wire traverses the coast, with

offices at Pasni and Gwādar; a telegraph line runs from Quetta to Kalāt, and a line has been sanctioned from Karāchi to Panjgūr.

Famine.

The State experiences constant scarcity and occasional famine. A drought lasting for ten years between 1830 and 1840 is mentioned by Masson. The population is, however, sparse and exceedingly hardy, and they have ready access to Sind, where good wages are obtainable. In the Census of 1901 as many as 47,345 Brāhuis were enumerated there. Advances amounting to about Rs. 29,000 were made by the State in 1900, when the scarcity which had begun in 1897 reached its culminating point. Such advances are recovered from the cultivator's grain heap at the ensuing harvests.

Administration.

The control exercised by the British Government over the Brāhui confederacy, and the administrative arrangements in areas subject to the direct authority of the Khān of Kalāt, are described in the article on BALUCHISTĀN. Except Khārān and Makrān, each main division of the State comprises both tribal areas and areas subject solely to the Khān. Collateral authority is, therefore, exercised by the Khān in his *niābats* and by tribal chiefs in their country. The intervention of the Political Agent is confined, as far as possible, to deciding inter-tribal cases or cases between the tribesmen and the Khān's subjects in which a right of arbitration rests with the British Government. In Makrān the Khān's *nāzim* exercises authority everywhere; in Khārān the chief is now subject to no interference from the Khān, but looks to the Political Agent in Kalāt. The Quetta, Nushki, and Nasīrābād *tahsīls* have been leased in perpetuity by the State to the British Government, and the right to levy transit dues in the Bolān Pass has been commuted for an annual subsidy of Rs. 30,000. The head quarters of the Political Agent were fixed at Mastung in 1904.

The revenue of the State is derived from three principal sources: subsidies and rents paid by the British Government, interest on investments, and land revenue. The subsidies include Rs. 1,00,000 paid under the treaty of 1876 and Rs. 30,000 for the Bolān Pass, while the quit-rents for the leased areas mentioned above amount to Rs. 1,51,500. Since 1893 a surplus of 41·5 lakhs has been invested in Government securities, yielding in interest 1·5 lakhs per annum. From this source are defrayed the cost of maintenance of the former Khān, Mīr Khudādād, the subsidies paid to the Jhalawān chiefs, the pay of Brāhui *thānas*, and the expenses of the administration of Makrān. The total income of the State may be estimated at between 7½ and 8¾ lakhs of rupees, the variations being due to fluctuations in the land revenue. The expenditure amounts to about 3½ or 4 lakhs. A sum of Rs. 53,000 is expended annually in the State by the British Government, in the

shape of telegraph subsidies, payments to chiefs for controlling their tribesmen, and the maintenance of levies. To this will now be added the charges, amounting to about 1·2 lakhs per annum, for the Makrān Levy Corps.

Land revenue is collected in kind, the rates varying from one-third to one-eighth of the produce. Cesses are also taken, the amount of which differs in almost every village, but which raise the share taken by the State to nearly one-half. Here and there are to be found cash assessments (*zar-i-kalang* or *zar-i-shāh*). The cultivators also perform certain services for the Khān, such as the escort of his horses and the repairs to the walls of his forts. Transit dues (*muhāri*) are levied on caravans passing through the *niābats*, and octroi (*sung*) on their entering and leaving trading centres. Contracts are given for the sale of liquor, meat, &c. The total land revenue varies with the agricultural conditions of the year. In 1903-4, on the introduction of a new system of administration, it rose to 4·5 lakhs. Large areas are held by tribesmen and tribal chiefs, in which the Khān is entitled to no revenue. In others, half the revenue has been alienated by the Khān (*adh-ambāri*). Many of these *jāgīrs* were originally held on the condition of feudal service. In Makrān the Gichkis, Nausherwānis, Bizanjaus, and Mīrwāris are the principal holders, while in Kachhi the *jāgīrs* are held by Brāhuis and Baloch. In such areas the tribal chiefs claim complete independence in all revenue, civil, and criminal matters. In *adh-ambāri* areas the Khān retains jurisdiction.

The army is an irregular force, without organization or discipline, consisting of 300 infantry, 300 cavalry, and 90 artillery with 29 old-fashioned guns, of which none are serviceable. The infantry is divided into two regiments, and the cavalry into three. The total cost amounts to about Rs. 82,000 per annum. Most of the troops are at Kalāt; detachments are stationed at Mastung and Khuzdār, and in Kachhi. Sepoys are paid Rs. 6 a month; non-commissioned officers, Rs. 7 to Rs. 12; while *risāldārs* and commandants receive from Rs. 20 to Rs. 50. The cavalry soldiers are mounted on horses found by the State. A force of 160 men is also maintained in Makrān, at an annual cost of about Rs. 32,000. Between 1894 and 1898 a body of 205 infantry and 65 camelmen under a British officer, known as the Kalāt State Troops, was maintained, but has been disbanded.

At the most important places in the Khān's *niābats* levies, known as *amla*, are stationed. These men are used for all kinds of duties, both revenue and criminal. They number 222, of whom 118 are mounted on their own horses and 64 are supplied with horses, when required, by the Khān. The remainder are unmounted. They are paid in kind, and get Rs. 18 per annum in cash. The total cash payments made to them amount to about Rs. 4,000. For dealing with cases in which

Brāhuis are concerned, *thānas*, manned by Brāhui tribesmen, are located in different parts of the country. They number eleven, with 100 men. In tribal areas and *jāgīrs* the peace is maintained by the chiefs, subsidies amounting to about Rs. 50,000 being paid by the Khān for this purpose in addition to the amounts paid by the British Government. A force of ten police is attached to the Political Adviser to the Khān for escort duty. One jail is maintained, with accommodation for 100 prisoners, and there are lock-ups at the Brāhui *thānas*. Offenders are often kept in the stocks, and are fed by their relations.

Education has hitherto been entirely neglected, but a large school is about to be opened at Mastung. A few boys are taught in mosque schools, and Hindu children receive education from their parents. Two dispensaries are maintained, one by the British Government and the other by the State. They relieved 8,919 patients in 1903 and cost Rs. 5,300. Inoculation is practised everywhere, principally by the Saiyids and Shaikhs, but the people have no objection to vaccination. The whole country has been surveyed on the ½-inch scale up to 66° E.; the results of a reconnaissance survey westward have been published on the ¾-inch scale.

[*Baluchistān Blue Books*, Nos. 1, 2, and 3 (1887), H. Pottinger, *Travels in Beloochistan and Sinde* (1816); C. Masson, *Narrative of a Journey to Kalāt* (1843); *Journeys in Baluchistān, Afghānistān, and the Punjab* (1842); G. P. Tate, *Kalāt* (Calcutta, 1896).]

Kalāt Town.—Capital of the Kalāt State in Baluchistān, situated in 29° 2′ N. and 66° 35′ E., 88½ miles from Quetta on the south of the Sarawān division. It is known to the natives as Kalāt-i-Baloch and Kalāt-i-Sewa; the former to distinguish it from Kalāt-i-Ghilzai in Afghānistān, and the latter after its legendary founder. The population (1901) does not exceed 2,000 persons. The inhabitants are chiefly the Khān's troops, numbering 491, and his retainers, with a few Hindu traders. The town occupies a spur of the Shāh-i-Mardān hill on the west of the Kalāt valley. A wall surrounds it, with bastions at intervals. Its three approaches on the north, south, and east are known respectively as the Mastungi, Gilkand, and Dildār gates. Three suburbs lie close by. Commanding the town is the *miri* or citadel, an imposing structure in which the Khān resides. Kalāt fell into the hands of the Mīrwāris about the fifteenth century, since which time the place has remained the capital of the Ahmadzai Khāns. In 1758 it withstood three assaults by Ahmad Shāh Durrani, and in 1839 was taken by the British under General Willshire. A year later it surrendered to the Sarawān insurgents. Below the citadel lies a Hindu temple of Kālī, probably of pre-Muhammadan date. The marble image of the goddess, holding the emblem of plenty, stands in front of two lights which are perpetually burning. The

trade of the town is chiefly retail business. Taxes on trade are collected by a system of contracts. Police functions are carried out by an official known as *mīr shab*, assisted by watchmen (*kotwāls*).

Kalataik.—Ancient site in Thaton District, Lower Burma. *See* TAIKKALA.

Kalāt-i-Ghilzai.—Fort in the Kandahār province of Afghānistān, situated in 30° 7′ N. and 66° 55′ E., on the road from Kandahār to Ghazni; 5,543 feet above the sea. It stands on the right bank of the Tarnak river, 87 miles from Kandahār and 229 from Kābul. The fort was occupied in 1842 by a sepoy garrison under Captain Craigie, which gallantly repulsed a determined Afghān attack in greatly superior numbers. In memory of this feat of arms, the 12th Pioneers still bear the name of 'The Kelat-i-Ghilzai Regiment,' and carry a special colour with the motto 'Invicta.' The fort was again held by a detachment of British troops in 1879–80. In the winter months the cold is very great; during spring and summer the climate is pleasant. The fort gives its name to one of the districts of the Kandahār province.

Kalburga.—Town in Gulbarga District, Hyderābād State. *See* GULBARGA.

Kale Subdivision.—South-western subdivision of the Upper Chindwin District, Upper Burma, containing the MASEIN, KALEWA, and KALE townships.

Kale.—South-western township of the Upper Chindwin District, Upper Burma, lying along the eastern slopes of the Chin Hills, between 22° 40′ and 23° 41′ N. and 93° 58′ and 94° 16′ E., with an area of 816 square miles. The population in 1901 was 10,691, distributed in 94 villages, Kalemyo (population, 881), on the Myittha stream, about 20 miles from its mouth, being the head-quarters. The township, which possesses a pestilential climate, consists of the valleys of the Myittha and its tributary the Neyinzaya *chaung*, which flows past the village of Yazagyo in a southerly direction to meet it. The area cultivated in 1903–4 was 34 square miles, and the land revenue and *thathameda* amounted to Rs. 34,000. The township was formed after the Census of 1901.

Kāle.—Village in the Karād *tāluka* of Sātāra District, Bombay, situated in 17° 14′ N. and 74° 13′ E., 31 miles south-by-east of Sātāra town. Population (1901), 5,077. Near it lie the Agashiv caves, the oldest Buddhist caves in the District.

Kalewa Township.—Southern township of the Upper Chindwin District, Upper Burma, lying on either side of the Chindwin river, between 23° 1′ and 23° 17′ N. and 94° 14′ and 94° 30′ E., with an area of 184 square miles, nearly the whole being a mass of low hills. The population in 1901 was 3,535, distributed in 36 villages. The head-quarters are at Kalewa (population, 1,036), situated at the junction

of the Myittha and Chindwin rivers, about 40 miles below Kindat. The area cultivated in 1903–4 was 11 square miles, and the land revenue and *thathameda* amounted to Rs. 10,000. The township was formed after the Census of 1901.

Kalghatgi.—Western *tāluka* of Dhārwār District, Bombay, lying between 15° 2′ and 15° 22′ N. and 74° 56′ and 75° 8′ E., with an area of 275 square miles. There are 99 villages, but no town. The head-quarters are at Kalghatgi. The population in 1901 was 53,657, compared with 55,258 in 1891. The density, 195 persons per square mile, is much below the District average. The demand for land revenue in 1903–4 was 1·3 lakhs, and for cesses Rs. 9,000. Most of the country is broken by wooded hills. The east and south are open and rolling, with bushy uplands. The north and west are wilder. The supply of water is on the whole plentiful. The rainfall in the west is heavier than in the rest of the *tāluka*—the average at Kalghatgi village being 36 inches a year

Kālī.—River of Nepāl and the United Provinces, better known as the SĀRDĀ.

Kaliākherī.—Head-quarters of the Nizāmat-i-Janūb or southern district of Bhopāl State, Central India, situated in 23° 2′ N. and 77° 40′ E., 6 miles by metalled road from Hirania station on the Midland section of the Great Indian Peninsula Railway. Population (1901), 1,333. It contains a school and British and State post offices.

Kaliāna (or Chal-Kalyāna).—Town in the Dādri *tahsīl* of Jīnd State, Punjab, situated in 28° 33′ N. and 76° 16′ E., 5 miles east of Dādri town. Population (1901), 2,714. It was the capital of Kalyān of the Chal tribe, a Rājā who in 1,325 rebelled against Alaf Khān, son of Ghiyās-ud-dīn Tughlak, king of Delhi, and was defeated and slain by Saiyid Hidāyatullah Khān, who also fell and whose tomb still exists.

Kaliandroog.—*Tāluk* and town in Anantapur District, Madras. *See* KALYANDRUG.

Kāli Baorī.—*Bhūmiāt* in the BHOPĀWAR AGENCY, Central India.

Kāliganj.—Village in the Sātkhira subdivision of Khulnā District, Bengal, situated in 22° 27′ N. and 89° 2′ E., on the Kānksiāli river. Population (1901), 47. Kāliganj lies on the boat-route between Calcutta and the eastern Districts, and has a large bazar and considerable local trade. It is also noted for its manufacture of earthenware, horn, and cutlery.

Kālimpong (or Dālingkot).—A hilly tract in Darjeeling District, Bengal, lying between 26° 51′ and 27° 12′ N. and 88° 28′ and 88° 53′ E., with an area of 412 square miles. It is situated east of the Tista, west of the Ni-chu and Di-chu (Jaldhākā), and south of the State of Sikkim.

and was acquired from Bhutān after the campaign of 1864–5. Of the total area, 213 square miles are occupied by 'reserved' forests and 10 square miles by four tea gardens, while 179 square miles are reserved for native cultivation; five-sixths of the inhabitants are settled on the *khās mahāls* or state lands. The country is cut up by ridges of varying height and steepness, separated by narrow valleys, the principal of which run back far into the mountains. These ridges debouch into the plains at elevations ranging from 300 feet to 1,000 feet above sea-level, rising in the interior to 10,500 feet at Rishi La. Over a large portion of the tract the 'reserved' forests cover the tops of the ridges and the bottoms of the valleys, while the cultivated area occupies the intervening space. The land above 5,000 feet is mostly, and that above 6,000 feet almost entirely, under 'reserved' forest, which also covers most of the area below 2,000 feet. The chief crop grown is maize, which occupies 38,000 acres, or more than three-quarters of the net cropped area. A new settlement of the land revenue was completed in 1903; the demand is Rs. 10,000 per annum, and Rs. 1,300 is realized from cesses. A poll tax was originally levied, which was gradually replaced by block rates, and these have in their turn given way to a differential classification and assessment of the lands within each block.

The land has been classified for revenue purposes as cardamom, held rent free for the first three years, during which there is practically no out-turn, after which it is assessed at Rs. 10 per acre; terraced rice lands, paying from 8 annas to Rs. 1–4 per acre; unterraced cultivation, including fallows of less than three years' standing, paying 6 annas to 15 annas per acre; and fallows of three years' standing and over, paying from 2 to 3 annas per acre. Some lands in each of the last three classes are assessed at a slightly lower rate for the first few years of the settlement. The estate has been divided into 48 blocks, excluding Kālimpong bazar, each under a headman or *mandal*, who is responsible for the collection of rents, the repair of roads, and certain other duties, in return for which he receives a percentage on the collections and certain other privileges. The total rental of the *khās mahāls* for 1903–4 was Rs. 31,000, and they are exempt from the payment of cesses. The chief village in the estate is KĀLIMPONG; and there are large bazars at Pedong on the Tibetan trade route, and at Sombāri at the end of the Chel valley, where the produce of the hill cultivators is sold to the cultivators of the Duārs. The forests and the colliery at Dāling have been referred to in the article on DARJEELING DISTRICT. A new tract has been opened for cinchona cultivation at Munsang. Oranges are grown and exported to the Duārs and the *tarai*.

[C. A. Bell, *Settlement Report* (Calcutta, 1905).]

Kālimpong Village.—Village in the head-quarters subdivision of

Darjeeling District, Bengal, situated in 27° 4′ N. and 88° 28′ E., 3,933 feet above sea-level. Population (1901), 1,069. The village, which has given its name to the tract of hilly country formerly known as Dālingkot, is the established market for Tibetan wool and other exports, and contains a large bazar. The wool, which is brought in vîa the Jelep La from Tibet, is dispatched by carts along the Tīsta valley road to Silīgurī on the Eastern Bengal State Railway. Since 1891 a fair has been held annually in November at Kālimpong, at which agricultural produce and stock are exhibited and prizes are given both in cash and in the form of English poultry and selected seed; this is the most successful agricultural show in Bengal, and is supported by subscriptions supplemented by a Government grant. More than 100 Tibetan mules are annually purchased here by Government for transport purposes at an average price of Rs. 150. A branch of the Church of Scotland Mission, established at Kālimpong, possesses a church, an Anglo-Hindī middle school with 4 masters and 55 pupils, and a hospital with 28 beds in connexion with the Government dispensary. The St. Andrew's Colonial Homes were instituted in 1900, under the auspices of the Church of Scotland, for the education of poor European and Eurasian children. The object of these homes is to give the children, in a healthy District and favourable environment, such a course of training as will fit them for emigration to the Colonies, or make them more robust for work in India. The scheme is managed by an independent committee, and the system adopted is that of cottage homes, each cottage holding 25 to 30 children. Originally 100 acres of land were granted by Government and an agricultural expert was appointed to superintend the outdoor work. The board of management have since obtained permission to acquire a tract of about 330 acres more and to hold it in the position of a ryot; of this, about 200 acres have already been acquired. The first cottage was opened in 1901, and three other cottages and a central school have since been added.

Kālī Nadī, East (properly Kālindī, corrupted into Kālī Nadī or 'black river' by Persian writers).—River of the United Provinces, flowing through the Districts of Muzaffarnagar, Meerut, Bulandshahr, Alīgarh, Etah, and Farrukhābād. It rises under the name of Nāgan in Muzaffarnagar (29° 19′ N., 77° 48′ E.), but in this District as well as in Meerut its bed is ill-defined and often dry. In Bulandshahr it becomes a perennial stream, running through a valley marked by high banks, and takes the name of Kālī Nadi. Its course then changes from south to south-east till it joins the Ganges not far above Kanauj, 310 miles from its source. The valley of the river in Bulandshahr, and in Etah, Mainpurī, and Farrukhābād, has suffered from the inability of the channel to carry off excessive rainfall, the effects in Bulandshahr

being augmented by the use of the river as a canal escape. Of late years, however, the Irrigation department has carried out a number of works to improve the flow, and deterioration has stopped. In 1885 a flood swept away the Nadrai aqueduct in Etah, which carries the Lower Ganges Canal over the river, and a series of wet seasons caused the land in the valley to deteriorate so much that large reductions of assessment were made. This tract has now recovered to a great extent.

Kālī Nadī, West.—A tributary of the HINDAN, about 70 miles long, rising in the Sahāranpur District of the United Provinces (30° N., 77° 45′ E.), 16 miles from the Siwāliks, and flowing south-west and south through Sahāranpur and Muzaffarnagar, between the Hindan and the Ganges Canal. Its junction with the Hindan is at the point where the latter river enters Meerut.

Kalinga.—One of the ancient kingdoms on the east coast of India. Its limits have been variously fixed, but it appears to have included the country lying between the Eastern Ghāts and the sea from the Godāvari river as far north as Orissa. Its people and its reigning house are alluded to in the oldest extant chronicles of India and Ceylon, and were also known to the classical writers of Greece and Rome and to the inhabitants of the Far East. They appear to have been adventurous traders by sea to different countries. The earliest Buddhist legends speak of the Kalinga monarchs as being even then the rulers of a civilized country, but little definite is known of them. A number of kings belonging to the Eastern Gangas of Kalinga are named in copperplate grants, which are dated in an era whose starting-point has yet to be settled. The earliest of these kings is believed to belong to the seventh century. Later records of the same family state that the Gangas of Kalinga were the cousins of the Western Gangas of Mysore. At the beginning of the eleventh century the Cholas overran Kalinga, which was then in the possession of the Eastern Chālukyas, and set up a pillar of victory on the Mahendragiri hill. The Gangas appear to have held Kalinga until a comparatively late period, though defeated by the Gajapatis in the fifteenth century. Inscriptions recently deciphered seem to show that their capital, for which very various sites have been at different times assigned, was at MUKHALINGAM in Ganjām District.

Kalingāpatam.—Historic village in Ganjām District, Madras. *See* CALINGAPATAM.

Kālinjar.—Town and hill-fort in the Girwān *tahsīl* of Bāndā District, United Provinces, situated in 25° 1′ N. and 80° 29′ E., 35 miles south of Bāndā town. Population (1901), 3,015. The fort occupies a hill which rises abruptly, and is separated from the nearest eminence by a valley about seven miles across. Elevation, 1,203 feet above the sea. The crown of the hill is a plateau. Vast polyhedral masses of

syenite form the base and afford a comparatively accessible slope, but the horizontal strata of sandstone which cap the whole present so bold an escarpment as to be practically impossible of ascent.

Kālinjar is one of the very ancient forts of Bundelkhand, and separate names for it are recorded in each of the three prehistoric periods of Hindu chronology. It is said to have been called Ratnakūta in the *Satya-yuga*, Mahāgiri ('the great hill') in the *Tretā*, and Pingālu (the 'brown-yellow' hill) in the *Dwāpara-yuga*. Other accounts transpose or vary these names. But its present appellation, Kālinjar, is itself of great antiquity. It occurs, as will be mentioned hereafter, in the Mahābhārata; it is conjectured to appear in Ptolemy under the name of Tamasis; and it is mentioned in the Siva Purāna as one of the nine *utkals*, from which will burst forth the waters that are finally to destroy the world. The modern name is sometimes rendered Kālanjar, from the local worship of Siva under his title of Kālanjara, or 'He who causes time to grow old.' It was a very ancient seat of Saivite rites, and according to local traditions was strongly fortified by Chandra Brim or Varmma, the legendary founder of the Chandel dynasty.

As in many other cases, Kālinjar was a high place sanctified by superstition, and fortified partly by nature and partly by art. The Mahābhārata mentions it as already a famous city, and states that whoever bathes in the Lake of the Gods, the local place for pilgrimage, is as meritorious as he who bestows in charity one thousand cows. The hill must have been covered with Hindu temples before the erection of the fort, for the dates of the inscriptions on the sacred sites are earlier than those on the gates of the fortress; and the ramparts consist largely of ornamental pillars, cornices, and other fragments of carved work, which evidently belonged to earlier edifices. Firishta speaks of it as having been founded by Kedar Nāth, a reputed contemporary of the Prophet, in the seventh century A.D. The Musalmān historians make mention of the king of Kālinjar as an ally of Jaipāl, Rājā of Lahore, in his unsuccessful invasion of Ghazni, A.D. 978. A Rājā of Kālinjar was also present at the battle of Peshāwar, fought by Anand Pāl in 1008, when endeavouring to check the victorious advance of Mahmūd of Ghazni in his fourth expedition. In 1021 Ganda or Nanda, the Chandel Rājā of Kālinjar, defeated the king of Kanauj; and in 1023 Mahmud of Ghazni besieged the fort, but came to terms with the Rājā. The Chandel clan of Rajputs removed the seat of their government from MAHOBĀ to Kālinjar after their defeat by Prithwi Rāj, the Chauhān ruler of Delhi, about 1182. In 1203 Kutb-ud-dīn, the viceroy of Muhammad Ghorī, took Kālinjar, and 'converted the temples into mosques and abodes of goodness,' while 'the very name of idolatry was annihilated.' But the Musalmāns do not seem to have long retained possession of their new conquest;

for in 1234, and again in 1251, we hear of fresh Muhammadan attacks on Kālinjar, which fell into the hands of Malik Nusrat-ud-dīn with a great booty. In 1247 Sultān Nāsir-ud-dīn Mahmūd brought the surrounding country under his sway; but even after this date, Chandel inscriptions erected in the fort show that it remained in the hands of its ancient masters almost up to the close of the thirteenth century.

Kālinjar next reappears in history in 1530, when the Mughal prince, Humāyūn, son of Bābar, laid siege to the fort, which he continued intermittently to attack during ten years. In 1545 the Afghān, Sher Shāh, marched against the stronghold; during the siege a live shell rebounded from the walls into the battery where the Sultān stood, and set fire to a quantity of gunpowder. Sher Shāh was brought out horribly burnt, and died the following day. Before his death, however, he ordered an assault, which was executed with instant success, and his son, Jalāl Khān, was crowned in the captured citadel and assumed the name of Islām Shāh. In 1569 Majnūn Khān attacked the fort, which was finally surrendered to him for Akbar, who constituted it the head-quarters of a *sarkār*. Under Akbar, Kālinjar formed a *jāgīr* of the imperial favourite, Rājā Bīrbal. Later it fell into the hands of the Bundelās (*see* BĀNDĀ DISTRICT); and on the death of their national hero, Chhatarsāl, it passed into the possession of Hardeo Sāh of Pannā. His descendants continued to hold it for several generations, when they gave way to the family of Kaim Jī, one of their own dependants.

During the period of Marāthā supremacy, Alī Bahādur laid siege to the fort for two years, but without success. After the British occupation Daryau Singh, the representative of Kaim Jī, was confirmed in possession of the fort and territory. But on his proving contumacious in 1812, a force under Colonel Martindell attacked Kālinjar; and although he failed to take the place by storm, Daryau Singh surrendered eight days later, receiving an equal portion of territory in the plains. During the Mutiny, a small British garrison retained possession of the fort throughout the whole rebellion, aided by the Rājā of Pannā. In 1866 the fortifications were dismantled.

The summit of the rock is between 4 and 5 miles in circuit, and is fortified by a rampart rising from the very edge. Access is obtained by a sloping pathway and flight of steps passing through seven gateways, several of which bear inscriptions. Numerous rock-cut tanks and a few remains of temples are to be seen on the plateau, and religious carvings and inscriptions are scattered about, some of which have yielded valuable historical results. One temple, dedicated to Nīlkanth, is still in good repair. There are also many caves, some of which contain inscriptions.

The town is locally known as Tarahtī, and is situated at the foot of the hill. It is now of small importance; but the ruins of fine residences and many old remains prove it to have been once rich and important. Tarahtī contains a dispensary, and was till recently administered under Act XX of 1856, but its importance is decreasing. There is a village school.

[*Journal, Asiatic Society of Bengal*, vol. xvii, pp. 171 and 313; Cunningham, *Archaeological Survey Reports*, vol. xxi, p. 20.]

Kālinjara.—Village in the State of Bānswāra, Rājputāna, situated in 23° 21′ N. and 74° 19′ E., on the right bank of the Hāran stream, a tributary of the Anās, 17 miles south-west of the capital. It was formerly a place of considerable trade carried on by Jain merchants, who were driven away by Marāthā freebooters. It is now the head-quarters of the southern of the two districts into which the State has been recently divided, and possesses a small Hindī school attended by about 20 boys. The place is remarkable as containing the ruins of a fine Jain temple, described by Heber as being built on a very complicated and extensive plan. It is covered with numerous domes and pyramids and divided into a great number of apartments, roofed with stone, crowded with images, and profusely embellished with rich and elaborate carvings.

[Bishop Heber, *Narrative of a Journey through the Upper Provinces of India*, vol. ii (1828).]

Kālī Sind.—Tributary of the CHAMBAL, draining part of Central India and Rājputāna. It rises in the Vindhyas in 22° 36′ N. and 76° 25′ E., at the village of Barjhirī, and flows for about 180 miles through the Gwalior, Dewās, Narsinghgarh, and Indore States in Central India, after which it traverses Kotah and Jhālawār in Rājputāna, piercing the Mukandwāra hills near Gāgraun, and falls into the Chambal, 225 miles from its source, near the village of Pīpara in Kotah State (25° 32′ N. and 76° 19′ E.). Its principal tributaries are the Lakundar in Central India, and the Pārwān, Ujar, and Ahu in Rājputāna. Though a perennial stream, the volume of water is small except in the rains, and several roads cross the river by causeways. The Ujjain-Bhopāl Railway, however, passes over a bridge near the Kālī Sind station. Water for irrigation is raised from its bed in the upper part of its course, but lower down the banks become too steep. The river is frequently referred to in Sanskrit literature, and is mentioned by Abul Fazl as one of the principal rivers of Mālwā. Sārangpur and Gāgraun are the principal places on its banks. It is probable that Kālī ('black') Sind derives its name from the prevalence of black basalt in its bed.

Kālka.—Town attached for administrative purposes to the Kharar *tahsīl* of Ambāla District, Punjab, situated in 30° 50′ N. and 76° 57′ E.,

at the foot of the outlying range of the Himālayas at an elevation of 2,400 feet, and entirely surrounded by Patiāla territory. It is the junction of the Delhi-Umballa-Kālka and Kālka-Simla Railways. Population (1901), 7,045. Kālka was acquired from Patiāla in 1843 as a dépôt for Simla; it is also an important market for hill produce, such as ginger and turmeric. There is a considerable manufacture of millstones, and a railway workshop is situated here, which employed 200 hands in 1904. It is administered as a 'notified area.'

Kallakurchi.—Western *tāluk* of South Arcot District, Madras, lying between 11° 34′ and 12° 4′ N. and 78° 38′ and 79° 13′ E., with an area of 873 square miles. The KALRĀYANS, one of the only two hill-ranges in the District, skirt its western border, and south of them the Atūr pass leads into Salem District. The population in 1901 was 269,377, having risen from 239,405 in 1891. There are no towns; but it contains 367 villages, of which Kallakurchi, the head-quarters, is situated on the trunk road from Cuddalore to Salem. It is the second largest *tāluk* in the District, and the second most sparsely peopled. The demand for land revenue and cesses in 1903–4 amounted to Rs. 4,92,000. In the hills in the west rise several small streams, which are utilized for irrigation by means of rough stone dams. The hill villages, which number 96, are divided into three *pālaiyams* or estates. The *poligārs* or chiefs obtain their revenue chiefly by leasing out the forests and by a poll-tax on their tenants, who are all Malaiyālis by caste. There is no irrigated cultivation on the hills; the principal 'dry crops' grown are *rāgi*, *cambu*, *tinai* (*Setaria italica*, a poor kind of millet), and *varagu*. Bamboos and timber of various kinds are taken down to the plains, and sold for house-building and other purposes.

Kalliānpur.—Village in the Udipi *tāluk* of South Kanara District, Madras, situated in 13° 24′ N. and 74° 44′ E. It is conjectured to have been the Kalliana mentioned by Cosmas Indicopleustes as the seat of a bishop in the sixth century. It is also the reputed birthplace of Madhvāchārya, the Vaishnavite reformer, who was born about A.D. 1199. The Portuguese established a factory here in 1678.

Kallidaikurichi.—Town in the Ambāsamudram *tāluk* of Tinnevelly District, Madras, situated in 8° 41′ N. and 77° 27′ E., on the Tāmbraparni river. It is a Union, with a population (1901) of 14,913. It contains a large number of Brāhmans, several of whom are engaged in a flourishing cloth trade with Travancore, while others are also bankers. The fields around the town are well watered and very valuable.

Kallikota and Atagada.—Two permanently settled estates in Ganjām District, Madras, lying between 19° 28′ and 19° 52′ N. and 84° 43′ and 85° 12′ E., on the northern boundary of the Presidency.

While the former is impartible, the latter is partible, and was acquired in 1854 by the *zamīndār* of Kallikota by purchase at a sale for arrears of revenue. The joint area of the two is 507 square miles and their population (1901) 169,693. The *peshkash* and cesses payable by them in 1903-4 amounted to Rs. 1,11,000. The chief village, Kallikota, is beautifully situated in a basin surrounded by hills.

The Kallikota family was founded by Rāmabhuya, who was made a *zamīndār* by the Gajapati king of Orissa, Purushottama. At a later period he obtained the title of Mardarājā Deo for his services in keeping the Marāthās out of the country. In 1769 the estate was in a disturbed condition and was occupied by British troops, and from 1771 to 1775 troops were again employed in maintaining order.

The soil is fertile and well irrigated, and yields good crops. The prevailing tenure is *mustājiri*, under which the villages are rented out to middlemen who collect the assessment. The rent payable by the tenant to the landlord is generally half the gross produce.

The present Rājā succeeded in 1887 as a minor, and the estates were managed for the next five years by the Court of Wards. During this period Rs. 93,000 was spent on repairs to irrigation works, Rs. 1,34,000 of debt was cleared off, and the property was handed over to its owner in 1893 in a flourishing condition, with an income which had been increased from Rs. 2,41,000 to Rs. 3,17,000, and with a cash balance of Rs. 2,11,000. Within the next ten years the Rājā had dissipated this balance, incurred further debts, and mortgaged the two estates to his creditors.

Kallūr Tāluka (formerly called Madhra).—Southern *tāluk* of Warangal District, Hyderābād State, north of the Kistna District of Madras, with an area of 966 square miles. The population in 1901, including *jāgīrs*, was 103,829, compared with 92,738 in 1891. The *tāluk* contains 184 villages, of which 25 are *jāgīr*, and Kallūr (population, 2,741) is the head-quarters. The land revenue in 1901 was 2·5 lakhs. The Nizām's Guaranteed State Railway passes through the *tāluk* from north-west to south-east. Rice is largely cultivated near tanks. The diamond mines of Partyal are situated in this *tāluk*.

Kallūr Town.—Town in the Raichūr *tāluk* of Raichūr District, Hyderābād State, situated in 16° 9′ N. and 77° 13′ E., 10 miles west of Raichūr town. It has three temples built of stone, all in good preservation, and two mosques. Population (1901), 6,456.

Kalmeshwar.—Town in the District and *tahsīl* of Nāgpur, Central Provinces, situated in 21° 14′ N. and 78° 56′ E., 13 miles west of Nāgpur city by road. Kalmeshwar is supposed to have been founded by nomad Ahīrs or herdsmen, and the name is derived from that of their god Kalma. Population (1901), 5,340. The town stands on black soil, lying low, with bad natural drainage. On a small eminence in its

centre is an old fortress, said to have been built by a Hindu family from Delhi in the time of Bakht Buland. Kalmeshwar was constituted a municipality in 1867. The municipal income during the decade ending 1901 averaged Rs. 4,400. In 1903–4 the income was Rs. 5,000, mainly derived from a house tax and market dues. A weekly cattle market is held, and there is some trade in grain and oilseeds. Cotton cloth is woven by hand. There is an English middle school.

Kālna Subdivision.—South-eastern subdivision of Burdwān District, Bengal, lying between 23° 7′ and 23° 36′ N. and 88° 0′ and 88° 25′ E., with an area of 399 square miles. This subdivision, like the adjoining subdivision of Kātwa, is flat and alluvial, and the eastern portion along the bank of the Bhāgīrathi is low-lying and marshy. The population in 1901 was 233,269, compared with 231,512 in 1891, the density being 585 persons per square mile. It contains one town, KĀLNA (population, 8,121), its head-quarters; and 698 villages. Nādanghāt possesses a large river trade in rice.

Kālna Town.—Head-quarters of the subdivision of the same name in Burdwān District, Bengal, situated in 23° 13′ N. and 88° 22′ E., on the right bank of the Bhāgīrathi. Population (1901), 8,121. Kālna was a place of great importance in Muhammadan times, and the ruins of a large fort which commanded the river are still to be seen. It was formerly the port which supplied the District, and steamers still visit it throughout the year; but it has suffered owing to the competition with the East Indian Railway, and its population has declined. A conspicuous feature of the town is a group of 109 Siva *lingam* temples, which were built in 1809. Kālna was constituted a municipality in 1869. The income during the decade ending 1901–2 averaged Rs. 13,000, and the expenditure Rs. 11,000. In 1903–4 the income was Rs. 16,000, of which Rs. 4,000 was derived from a tax on persons (or property tax) and Rs. 4,000 from a tax on vehicles, &c.; and the expenditure was Rs. 14,000. The town contains the usual public offices; the subsidiary jail has accommodation for 20 prisoners.

Kālni.—River in Assam. *See* SURMA.

Kālol Tāluka (1).—Southern *tāluka* of the Kadi *prānt*, Baroda State, with an area of 267 square miles. The population fell from 97,089 in 1891 to 80,532 in 1901. It contains one town, KĀLOL (population, 6,465), the head-quarters; and 88 villages. The *tāluka* presents the appearance of a fairly wooded and well-cultivated plain. The Sābarmati river just touches its western boundary. The surface soil is *gorāt*, or of a light sandy nature. In 1904–5 the land revenue was Rs. 2,15,000.

Kālol Town.—Head-quarters of the *tāluka* of the same name, Kadi *prānt*, Baroda State, situated in 23° 15′ N. and 72° 32′ E., on the

Rājputāna-Mālwā Railway. Gaikwār's State lines run from here to Vijāpur on one side, and to Kadi on the other. Population (1901), 6,465. Kālol contains Munsif's and magistrate's courts, a dispensary, a vernacular school, and local offices. An annual grant of Rs. 1,300 is made to the municipality. The town is the centre of a considerable trade in grain.

Kālol Tāluka (2).—Southern *tāluka* of the western portion of Pānch Mahāls District, Bombay, including the petty subdivision (*petha*) of Hālol, lying between 22° 15′ and 22° 44′ N. and 73° 22′ and 73° 44′ E., with an area of 414 square miles. It contains one town, Kālol (population, 4,446), the head-quarters; and 252 villages. Population in 1901 was 73,796, compared with 87,851 in 1891, the decrease being due to famine. The density, 178 persons per square mile, slightly exceeds the District average. Kālol forms a rich well-wooded plain; its fields fenced with hedges and rows of brab palms; its villages compact and comfortable. Three rivers cross the *tāluka*: from east to west the Mesri in the north, the Goma in the centre, and the Karād in the south. These rivers become torrents in the rains, and trickling streams in the cold season. Light or *gorādu* soil lies all over this part of the country; the black cotton soil is not met with. The petty division of Hālol is a well-wooded and tilled plain surrounding the hill fort of Pāvāgarh. To the east and south, low isolated hills stand out from a rich black-soil plain, most of it waste. Within 4 or 5 miles of the hills the climate is unhealthy and the water often deleterious. Three rivers, the Karād, Visvāmitri, and Devnadī, cross Hālol from east to west. Water lies near the surface. Cultivation is rude, and the peasantry inert. The annual rainfall averages 37 inches. Land revenue (including Hālol) and cesses in 1903–4 amounted to more than 1·1 lakhs.

Kālpī Tahsīl.– Eastern *tahsīl* of Jālaun District, United Provinces, conterminous with the *pargana* of the same name, lying between 25° 53′ and 26° 22′ N. and 79° 25′ and 79° 52′ E., with an area of 407 square miles. Population fell from 78,754 in 1891 to 75,602 in 1901. There are 154 villages and one town, KĀLPĪ (population, 10,139), the *tahsīl* head-quarters. The demand for land revenue in 1903-4 was Rs. 1,55,000, and for cesses Rs. 25,000. The density of population, 186 persons per square mile, is the lowest in the District. The *tahsīl* is bounded on the north-east by the Jumna and on the south by the Betwā, while several small drainage channels enter it from the west and unite to form a stream called the Non. In the south-west the soil is inferior *mār*, and this tract has recently suffered from bad seasons and is overgrown with *kāns* (*Saccharum spontaneum*). Near the Jumna the soil becomes lighter, and on the banks of the vast system of ravines which fringe that river and the smaller streams denudation has reduced the

fertility of the land. In 1899–1900 the area under cultivation was 158 square miles, of which only 9 were irrigated.

Kālpī Town.—Head-quarters of the *tahsīl* of the same name in Jālaun District, United Provinces, situated in 26° 8′ N. and 79° 45′ E., on the Jumna, on the road from Cawnpore and Saugor, and on the Great Indian Peninsula Railway. Population (1901), 10,139.

According to tradition Kālpī was founded in the fourth century by one Bāsdeo. It fell into the hands of Kutb-ud-dīn in 1196, and at once became an important fortress of the Musalmāns. In the fifteenth century Ibrāhīm Shāh of Jaunpur made two unsuccessful attempts to seize Kālpī, and in 1435 Hoshang Shāh of Mālwā captured the place. A few years later Ibrāhīm's successor, Mahmūd, was allowed to occupy the town on the plea of chastising the governor. He plundered it, and then refused to restore it to the king of Mālwā, but afterwards came to terms. In the struggle between the Jaunpur kingdom and the rulers of Delhi, which ended with the extinction of the former, a great battle took place near Kālpī in 1477, and Husain Shāh of Jaunpur fled to Kanauj, where he was again defeated. When the victory at Pānīpat in 1526 laid open the plains of Hindustān to Bābar, the Rānā of Chitor and the Afghāns combined to stop his advance, and occupied Kālpī, but were met near the site of Fatehpur Sīkri, as they marched on Agra, and defeated. Kālpī was taken in 1527 by Humāyūn after his conquest of Jaunpur and Bihār, and held till 1540, when the Mughals were defeated by Sher Shāh at Kanauj. It was again the scene of fierce contests in the struggles which sapped the Afghān strength before the return to power of the Mughals. Under Akbar Kālpī became the head-quarters of a *sarkār*, which included the adjacent parts of the present Districts of Etāwah, Cawnpore, and Hamīrpur, besides Jālaun and portions of the State of Gwalior. When the Marāthās acquired part of Bundelkhand early in the eighteenth century, Kālpī became the head-quarters of their governor. In 1798 the town was captured by the British, but was subsequently abandoned. It again fell into their power, after a few hours' resistance, in 1803, and was granted to Himmat Bahādur. He died in the following year and the grant lapsed, when the town was made over to Gobind Rao of Jālaun, who exchanged it in 1806. After the large District of Bundelkhand was divided into two portions, Kālpī was for a time the head-quarters of the northern division, afterwards called HAMĪRPUR DISTRICT. During the Mutiny a great victory was won near here, in May, 1858, by Sir Hugh Rose over a force of 12,000 rebels under the Rānī of Jhānsi, the Rao Sāhib, and the Nawāb of Bāndā, which did much to quell the rebellion in Bundelkhand.

The town is situated among the ravines of the Jumna, and after a long period of decay is again reviving in importance. The western

outskirt contains a number of old tombs, notably that called the Chaurāsī Gumbaz (or 'eighty-four domes'); but ravines now separate these relics of the past from the dwellings of the living. Old Kālpī stands near the river on an elevated site, and is a good specimen of the older type of North Indian town, with darkened plaster walls and flat roofs interspersed with trees, and here and there a temple spire or a Muhammadan dome. The newer portion of the town stretches south-east, and is lower and farther from the river. On the most prominent edge of the steep bank stand the ruins of a fort, but only a single building has survived. This is a masonry room with walls 9 feet thick, said to have been the treasury of the Marāthā governor. A fine flight of steps leads from the fort to a bathing *ghāt* on the river. A few years ago a lofty tower was built by a local pleader, which is adorned with representations of the battles of the Rāmāyana It is noteworthy that less prominence is given to Rāmā than to Rāvana his adversary, who is represented as a gigantic many-armed figure, of dignified aspect, about 80 feet in height. The chief public buildings are the *tahsīli* and dispensary.

Kālpī has been a municipality since 1868. During the ten years ending 1901 the income and expenditure averaged Rs. 11,000. In 1903-4 the income was Rs. 14,000, chiefly derived from octroi (Rs. 9,000); and the expenditure was Rs. 14,000. For many years Kālpī was a great trade centre. Cotton and grain were brought from the south, and sent away to Cawnpore or down the Jumna to Mirzāpur and Calcutta, while the manufactures of sugar-candy and paper were celebrated. The buildings of the East India Company's cotton factory, which was one of the principal stations for providing the annual investment, are still standing. As railways spread and trade routes altered, Kālpī declined, but its commerce is now again increasing. Grain is sent to Southern and Western India, *ghī* to Bengal, and cotton to Cawnpore or Bombay. Two small cotton-gins have recently been opened, and the Forest department is starting plantations of *babūl* for the supply of bark to the Cawnpore tanneries. The *tahsīlī* school has 111 pupils, and there are three municipal schools with 170, and a girls' school with 19.

Kālra.-Estate in the District and *tahsīl* of Shāhpur, Punjab, with an area of 13 square miles. For services in the Mutiny a member of the Tiwāna family of Mitha Tiwāna, named Malik Sāhib Khān, Khān Bahādur, C.S.I., obtained a grant of 8,700 acres of waste land in the Shāhpur *tahsīl*. To irrigate this he constructed a canal, and the estate is now a most valuable one. His son, Malik Umar Hayāt, succeeded in 1879. The Malik also owns estates in Shāhpur, Jhelum, and Lyallpur Districts, aggregating nearly 13,000 acres, and the whole property yields an income of about 2 lakhs. Recently the

Malik obtained a horse-breeding grant of 2,270 acres in the Jhelum Colony.

Kalrāyan Hills.—These hills are situated partly in the Atūr and Uttangari *tāluks* of Salem District and partly in South Arcot District, Madras, lying between 11° 38′ and 12° 4′ N. and 78° 28′ and 78° 49′ E. They stand east of the Tenandamalai, being separated from it by the Kottapatti valley, and are perhaps the largest in superficial extent of the hill ranges in Salem District. Different portions of the range have local names, but the principal divisions are the Periya ('big') Kalrāyans, which attain an elevation of 4,300 feet, and the Chinna ('little') Kalrāyans, reaching to little above 3,000 feet. The temple of Kari Rāman in the Periya Kalrāyans is held in great reverence by the Malaiyālis who inhabit these hills. The range is parcelled out into five *jāgīrs* or estates, the owners of which govern their tenants in a primitive and patriarchal fashion. The fever on the range is so dreaded that few dwellers on the plains ever go up it, and consequently the people have retained many curious customs which differ from those of the low country. They are exclusively of the caste known as Malaiyālis; but there is no doubt that they are not a distinct race, but merely Tamils who at some remote period took refuge in these hills from the troublous times through which the plains were passing.

Kālsī.—Town in the Chakrātā *tahsīl* of Dehra Dūn District, United Provinces, situated in 30° 32′ N. and 77° 51′ E., close to the confluence of the Jumna and the Tons, on the military road from Sahāranpur to Chakrātā, 52 miles from the former and 25 miles from the latter. Three miles away the road crosses the Jumna by an iron girder-bridge. Population (1901), 760. The place has declined owing to the transfer of the *tahsīl* head-quarters to Chakrātā. Kālsī is administered under Act XX of 1856, the annual income and expenditure amounting to Rs. 300 or Rs. 400. It is chiefly remarkable for a large quartz boulder in the neighbourhood on which are sculptured the celebrated edicts of Asoka; one of these gives the names of contemporary kings in Western Asia, Greece, and Egypt[1].

Kalsia.—Native State in the Punjab, under the political control of the Commissioner, Delhi Division. It comprises twenty detached pieces of territory in Ambāla and Ferozepore Districts, lying mainly between 30° 12′ and 30° 25′ N. and 77° 21′ and 77° 35′ E. The present Sardār of the State, Ranjīt Singh, is a descendant of Sardār Gurbakhsh Singh, a Jat of Kalsia near Lahore, who joined the Kroria *misl* or confederacy of the Sikhs. His son Jodh Singh, a man of ability and prowess, effected considerable conquests on both sides of the Sutlej, but eventually the family lost all those north of the river. When the Cis-Sutlej States came under British protection, Sardār Jodh

[1] *Corpus Inscriptionum Indicarum*, vol. i, pp. 12 and 117.

Singh, after some hesitation, followed the general example. The State has an area of 168 square miles, and a population (1901) of 67,181. It is divided into two *tahsīls*, Chhachhrauli and Basi, with the isolated sub-*tahsīl* of Chirak, in Ferozepore District. It contains two towns, CHHACHHRAULI (population, 5,520) and BASI (4,641); and 181 villages. In 1903-4 the revenue amounted to 1·9 lakhs, of which 1·2 lakhs was land revenue. The State was regularly settled in 1891. It had suffered considerably from over-assessment, and its people had been impoverished. The excise administration is leased to the British Government for Rs. 6,000 per annum.

Kalsūbai.—Hill in Ahmadnagar District, Bombay, situated in 19° 36′ N. and 73° 42′ E., 5,427 feet high, and the most elevated point in the Deccan. Its summit is crowned by a temple, 10 miles south-east of Igatpuri, a station on the north-east branch of the Great Indian Peninsula Railway. A priest of Devī Kalsū daily climbs to the temple from Indor, a village at the foot of the hill, to offer a sacrifice of fowls. The shrine is visited by large numbers of Kolīs.

Kalugumalai (*kalugu*, 'an eagle,' and *malai*, 'a hill').—Village in the Ettaiyāpuram *zamīndāri* and the Ottappidāram *tāluk* of Tinnevelly District, Madras, situated in 9° 8′ N. and 77° 42′ E., 28 miles north of Tinnevelly town and 12 miles from Sankaranayinārkovil. Population (1901), 4,827. It contains a celebrated rock-cut temple dedicated to the god Subrahmanya, and many Jain sculptures and inscriptions. The temple is similar in style to the SEVEN PAGODAS in Chingleput District, and is thought to have been built in the tenth or eleventh century. An annual festival and cattle fair in February attract a large number of people from the southern Districts and even from Mysore.

Kālukhera.—*Thakurāt* in the MALWĀ AGENCY, Central India.

Kalvakurti.—Eastern *tāluk* of Manbūbnagar District, Hyderābād State, with an area of 583 square miles. The population in 1901, including *jāgirs*, was 54,384, compared with 52,132 in 1891. The *tāluk* in 1901 contained 101 villages, of which 31 are *jagir*, and Kalvakurti (population, 2,230) is the head-quarters. The land revenue was Rs. 85,000. In 1905 this *tāluk* received some additions from the adjoining *tāluk* of Jedcherla, and now contains 99 *khālsa* villages.

Kalvān.—North-western *tāluka* of Nāsik District, Bombay, lying between 20° 21′ and 20° 42′ N. and 73° 40′ and 74° 20′ E., with an area of 494 square miles. There are 188 villages, but no town. The population in 1901 was 53,616, compared with 60,417 in 1891. The density, 109 persons per square mile, is much below the District average. The head-quarters are at Kalvān. The demand for land revenue in 1903-4 was Rs. 91,000, and for cesses Rs. 6,000. The

west is covered with steep bare hills; towards the east the country, though flatter and more fertile, is divided by a spur running south-east from the Western Ghāts; in the south rises the high and rugged Saptashring range, with its lower slopes fringed with teak. The annual rainfall averages 25 inches.

Kalyān Tāluka.—Southern *tāluka* of Thāna District, Bombay, lying between 19° 4′ and 19° 24′ N. and 73° 1′ and 73° 24′ E., with an area of 276 square miles. It contains one town, KALYĀN (population, 10,749), the head-quarters; and 224 villages. The population in 1901 was 77,087, compared with 80,171 in 1891. The density is 279 persons per square mile, or rather more than the District average. Land revenue and cesses in 1903–4 amounted to 2·2 lakhs. The *tāluka* is triangular in form, and in its western part a rich open plain. In the south and east, ranges of hills running parallel with the boundary line throw out spurs into the heart of the plain. The transport of produce is facilitated by the tidal creek of the Ulhās river and by the Great Indian Peninsula Railway. The river Kālu is navigable by boats of 10 tons for 9 miles above Kalyān town. There are disagreeable east winds in April and May; but although fever is prevalent in the cold season, the climate is on the whole temperate and healthy.

Kalyān Town.—Head quarters of the *tāluka* of the same name in Thāna District, Bombay, situated in 19° 14′ N. and 73° 10′ E., at the junction of the north-east and south-east lines of the Great Indian Peninsula Railway, 33 miles north-east of Bombay. Population (1901), 10,749. Kalyān has been a municipality since 1855. The municipal income during the decade ending 1901 averaged Rs. 19,000. In 1903-4 the income was Rs. 19,579. It has a considerable rice-husking trade, carried on by Muhammadans and some Marāthās. This industry gives occupation to about 750 persons, half of whom are women. There is also a trade in tobacco, dried fish, bricks, tiles, and myrabolams. The streets and lanes in the town are metalled, and kept in clean condition. A ferry plies across the Ulhās river to Kone on the opposite bank. The town has a vegetable market built by the municipality. It is supplied with water from the Shenala lake about a quarter of a mile to the east.

The name of Kalyān appears in ancient inscriptions, which have been attributed to the first, second, fifth, or sixth century A.D. According to the *Periplus*, Kalyān rose to importance about the end of the second century. Cosmas Indicopleustes, in the sixth century, mentions it as one of the five chief marts of Western India, the seat of a powerful king, with a trade in brass, black-wood logs, and articles of clothing. Early in the fourteenth century the Muhammadans found Kalyān the capital of a district, and gave it the name of Islāmābād.

It was taken by the Portuguese in 1536. They did not garrison the town, but, returning in 1570, burnt the suburbs and carried off much booty. From this time it seems to have formed part of the Ahmadnagar kingdom. In 1648 Sivajī's general, Abājī Sondeo, surprised Kalyān and took the governor prisoner. The Muhammadans recovered the town in 1660, but again lost it in 1662. In 1674 Sivajī granted the English leave to establish a factory. The Marāthās in 1780 having cut off their supplies, Kalyān was seized by the British, and has since remained in their possession. Objects of interest are the Shenali tank, said to have been built in 1505; the tomb of Motabar Khān, minister of Shāh Jahān, who was sent in disgrace to Kalyān when Aurangzeb usurped his father's throne; and seven mosques, of which the graceful Kālī Masjid is the most noteworthy. The town contains a Sub-Judge's court, a dispensary, an English school with 87 pupils, 7 vernacular schools for boys with 358 pupils, and one for girls with 96. There are also a library, a small printing press, and a rice-husking mill.

Kalyandrug Tāluk.—Westernmost *tāluk* of Anantapur District, Madras, lying between 14° 14′ and 14° 44′ N. and 76° 51′ and 77° 23′ E., with an area of 817 square miles. The population in 1901 was 76,977, compared with 72,730 in 1891. Originally part of the Dharmavaram *tāluk*, it was separated at the end of 1893. It contains 70 villages and one town, KALYANDRUG (population, 8,815), the head-quarters. The demand for land revenue and cesses in 1903–4 amounted to Rs. 1,30,000. No less than 88 per cent. of the 'dry' land pays an assessment of four annas or less per acre. The *tāluk* is rocky and barren, the soil stony and very poor, and the rainfall less than 21 inches per annum. Consequently it is bare and uninviting, and the density of population is less than 100 per square mile, being lower than in any *tāluk* in the Presidency except those which are covered with hill and forest. The northern portion has a little black cotton soil and is slightly richer.

Kalyandrug Town.—Head-quarters of the *tāluk* of the same name in Anantapur District, Madras, situated in 14° 33′ N. and 77° 6′ E. Population (1901), 8,815. It was formerly a place of some importance, containing a District Munsif's court, but now, being off the railway and in the centre of a very barren tract, it is in a decaying state. It lies in a hollow surrounded by hills, two of which are 2,400 feet high. The ruins of an old fort and the buildings connected therewith still stand, but are of no antiquarian interest. On the higher of the two hills above referred to, and in the neighbouring village of Mudigallu, are some hundreds of prehistoric kistvaens. On the hill are also three curious circular mounds of earth, about 3 feet in height and some 10 or 11 yards in diameter. All round them are planted, upright in

the earth, slabs of stone of irregular shape, which stand from 4 to 5 feet above the ground.

Kalyāni.—A *jāgīr* town in Bīdar District, Hyderābād State, situated in 17° 53′ N. and 76° 57′ E., 36 miles west of Bīdar town. Population (1901), 11,191. About the middle of the eleventh century Someshwar I made Kalyāni the capital of the Chālukyan kingdom. A hundred years later the power was usurped by Bijjala Kalachuri, the commander-in-chief, and before the close of the twelfth century the Chālukya power was at an end. While Kalyāni remained a great capital, it was noted as the residence of Vijnāneshwar, the author of the treatise on law known as the *Mitākshara*, and of Basava who founded the Lingāyat sect. Further particulars about Basava and the Lingāyats will be found in the article on MYSORE STATE. The Kalachuris were succeeded by the Yādavas of Deogiri (DAULATĀBĀD); and after the establishment of the Bahmani dynasty, Kalyāni passed into their possession in the fourteenth century, and subsequently into that of Bijāpur. The Mughals sacked it in 1653. In 1656 Aurangzeb invested the fortress, which surrendered after an heroic defence. During the contests which followed the decline of Chālukyan power, and the struggles between various Muhammadan rulers, the magnificent temples which once adorned the place were demolished or converted into mosques.

Kama.—South-western township of Thayetmyo District, Burma, lying between 18° 52′ and 19° 18′ N. and 94° 39′ and 95° 13′ E., and extending from the Irrawaddy in the east to the Arakan Yoma on the west. The area of the township, which is intersected by low hills, is 575 square miles, and it contains 201 villages. The population in 1891 was 41,383, and in 1901, in consequence of emigration to the delta, it had fallen to 39,570 (including 2,500 Chins). The head-quarters are at Kama (population, 1,779), a village situated on low hills on the right or western bank of the Irrawaddy. In 1903–4 the area under cultivation was 50 square miles, paying Rs. 53,000 land revenue.

Kāma.—*Tahsīl* and head-quarters thereof in Bharatpur State, Rājputāna. *See* KĀMAN.

Kamadhia.—Petty State in KĀTHIĀWĀR, Bombay.

Kamaing.—North-western township of Myitkyinā District, Upper Burma, lying between 25° 30′ and 26° N. and 96° and 97° E., with an area of 2,650 square miles. The population in 1901 was only 9,687, half of whom were Kachins, a fourth Shans, and one-sixth Burmans. It contains 126 villages, of which all but five are in the Kachin Hill Tracts. Kamaing (population, 1,079), where there is a strong military police post, is the head-quarters. In 1903–4 the area cultivated was 600 acres, apart from *taungyas*; but the greater part of the township is forest. The land revenue and *thathameda* amounted to Rs. 5,000.

Kāmākhya.—A temple, sacred to Satī, which stands on the beautiful Nilāchal hill overhanging the Brahmaputra, about 2 miles west of Gauhāti, in Kāmrūp District, Eastern Bengal and Assam, in 26° 10′ N. and 91° 45′ E. According to tradition, the temple was originally built by Naraka, a prince who is said to have flourished at the time of the Mahābhārata, and to have constructed a stone-paved causeway up the hill, which is still in existence. It was rebuilt by Nar Nārāyan about A.D. 1565, and on the occasion of its consecration 140 human heads were offered to the goddess, but only a small portion of Nar Nārāyan's temple now remains. Satī's organs of generation are said to have fallen on the place now covered by the temple, and this fact renders the spot an object of pilgrimage to devout Hindus from every part of India. Six other temples stand on the hill, and from the summit a magnificent view is obtained over the river and the surrounding country. A grant of revenue-free land, nearly 8,000 acres in extent, made to the goddess by the native rulers of Assam, has been confirmed by the British Government The most important festivals are the Pous Bia, about Christmas time, when Kāmākhya is married to Kāmeswar, and the Basanti and Durgā *pūjās*, which are celebrated, the former in the spring, the latter in the autumn.

Kamālia (Kot Kamālia).—Town in the District and *tahsīl* of Montgomery, Punjab, situated in 30° 43′ N. and 72° 40′ E., 27 miles west of Montgomery town, and 14 from Chīchāwatni station on the North-Western Railway. Population (1901), 6,976. It is identified by Cunningham as one of the towns of the Malli taken by Alexander. The modern town was founded by a Kharral chief named Khān Kamāl in the fourteenth century. In 1857 the insurgent tribes held the place for a week, and completely sacked it. The municipality was created in 1868. The income during the ten years ending 1902–3 averaged Rs. 9,300, and the expenditure Rs. 8,700. In 1903–4 the income was Rs. 8,800, derived mainly from octroi, and the expenditure Rs. 10.200. Since British annexation a brisk trade in the produce of the Rāvi lowlands has sprung up, and the importance of Kamālia has been immensely increased by the opening of the North Western Railway. The town is now a place of considerable commerce, dealing in wheat, grain, and pulses from the surrounding villages and Jhang; *gur* and sugar from Jullundur and Amritsar; piece-goods from Karāchi, Amritsar, and Delhi. The exports are chiefly cotton, *ghi*, and wool. Excellent cotton prints and carpets are manufactured. The town contains an Anglo-vernacular middle school, a private high school, and a dispensary.

Kamālpur.—Petty State in KĀTHIĀWĀR, Bombay.

Kamālpur.—*Thakurāt* in the BHOPĀL AGENCY, Central India.

Kāman.—Head-quarters of a *tahsīl* of the same name in the State

of Bharatpur, Rājputāna, situated in 27° 39′ N. and 77° 16′ E., about 36 miles north-by-north-west of Bharatpur city. Population (1901), 12,083. The town contains a vernacular school attended by 140 boys, and a dispensary. The old name of the place is said to have been Kadamba-vana (contracted to Kāmavana), from the number of *kadamb* trees (*Anthocephalus Cadamba*) found here; another account traces its name to a mythical Rājā Kāmsen. Kāman is one of the twelve holy places of the Braj Mandal (*see* MUTTRA DISTRICT), and its shrine of Gopīnāth is regularly visited by pilgrims. In the middle of the town is an old fort, in which are many fragments of Hindu sculpture, and a mosque called Chaurāsi Khambā ('84 pillars'). None of these pillars is without ornament, and some are very highly decorated. On one of them is a Sanskrit inscription of the Sūrasenas; it bears no date, but is believed to belong to the eighth century, and records the building of a temple to Vishnu.

[*Indian Antiquary*, vol. x; *Archaeological Survey of Northern India*, vol. xx.]

Kāmāreddipet.—*Tāluk* in Nizāmābād District, Hyderābād State. In 1901 the area was 413 square miles, and the population, including *jāgīrs*, was 64,933, compared with 63,366 in 1891. The *tāluk* had 96 villages, of which 25 were *jāgīr*, Kāmāreddipet (population, 2,503) being the head-quarters. The land revenue in 1901 was 2·2 lakhs. In 1905 the *tāluk* was enlarged by the transfer of villages from the Medak and Rāmāyampet *tāluks* of Medak District, and Sirsilla in Karīmnagar (formerly Elgandal). It is hilly in some parts.

Kāmārhāti.—Town in the Barrackpore subdivision of the District of the Twenty-four Parganas, Bengal, situated in 22° 40′ N. and 88° 23′ E., on the east bank of the Hooghly river. Population (1901), 13,216. Within this municipality is the greater part of the village of Dakhineswar, with its group of temples called Rānī Rāsmanī's Nabaratna. These consist of two beautiful central temples, dedicated to Kālī and Krishna, faced by twelve minor temples in honour of Siva. Kāmārhāti was formerly included within the Baranagar municipality, but in 1899 a separate municipality was constituted. The income during the five years since the formation of the separate municipality has averaged Rs. 16,000, and the expenditure Rs. 15,000. In 1903–4 the income was Rs. 17,700, of which Rs. 7,000 was obtained from a tax on houses and lands and Rs. 8,000 from a conservancy rate; and the expenditure was Rs. 16,600.

Kamāsin.—*Tahsīl* of Bāndā District, United Provinces, conterminous with the *pargana* of the same name, lying along the Jumna between 25° 17′ and 25° 38′ N. and 80° 47′ and 81° 12′ E., with an area of 358 square miles. Population fell from 83,297 in 1891 to 78,773 in 1901. There are 169 villages, but no town. The demand

for land revenue in 1903–4 was Rs. 1,18,000, and for cesses Rs. 20,000. The density of population, 220 persons per square mile, is slightly above the District average. Besides the Jumna, the Bāghain and Paisunī drain the *tahsīl*, flowing from south-west to north-east to join the great river. Some of the best cotton produced in the District is grown in Kamāsin. In 1903–4 less than half a square mile was irrigated, out of 205 square miles under cultivation. The Ken Canal, when completed, will serve a small area in the west of this *tahsīl*.

Kamātāpur.—Ruined city in Cooch Behār State, Bengal, situated in 26° 23′ N. and 89° 21′ E. The city is reputed to have been founded by Rājā Nīladhwaj, the first of the Khen kings. Its ruins indicate that it must have been a very extensive place. Dr. Buchanan Hamilton in 1809 found that it occupied an area 19 miles in circumference, 5 of which were defended by the Dharlā, and the rest by a rampart and ditch. The city consisted of several enclosures, one within the other, the centre one being occupied by the king's palace. Kamātāpur was abandoned and fell into decay after the overthrow of Rājā Nīlāmbar by Alā-ud-dīn Husain, king of Bengal, towards the close of the fifteenth century. Kamātāpur figures conspicuously as Comotay in some of the earlier maps of India.

[Sir W. W. Hunter, *Statistical Account of Bengal* (1876), vol. x, pp. 362–70.]

Kambam.—*Tāluk* and town in Kurnool District, Madras. *See* CUMBUM.

Kambar Tāluka.—*Tāluka* of Lārkāna District, Sind, Bombay, lying between 27° 19′ and 27° 52′ N. and 67° 14′ and 68° 10′ E., with an area of 627 square miles, of which about one fifth is *jāgīr* land belonging to Ghaibi Khān Chandia. The population in 1901 was 88,527, compared with 79,019 in 1891. The *tāluka* contains one town, KAMBAR (population, 4,807), the head-quarters, and 92 villages. The density, 141 persons per square mile, slightly exceeds the District average. The land revenue and cesses in 1903 amounted to 3·6 lakhs. The *tāluka* depends upon the Ghar canal and its branches for cultivation. Rice of excellent quality is the principal crop; but owing to excessive irrigation the country is malarious. The same circumstance renders it one of the finest shooting grounds for wild fowl in Northern India.

Kambar Town.—Head quarters of the *tāluka* of the same name in Lārkāna District, Sind, Bombay, situated in 27° 36′ N. and 68° 3′ E., about 12 miles by road west by north from Lārkana town, and a station on the North-Western Railway. Population (1901), 4,807. The municipality, established in 1862, had an average income during the decade ending 1901 of Rs. 12,300, derived mostly from town dues, cattle-pound fees, and fisheries. In 1903-4 the income was Rs. 17,000.

The town was plundered by the Baluchis in 1848, and almost destroyed by fire in the following year. It contains a dispensary, an Anglo-vernacular and a vernacular school, attended respectively by 46 and 93 pupils.

Kameri.—Village in the Vālva *tāluka* of Sātāra District, Bombay, situated in 17° N. and 74° 19′ E. Population (1901), 5,052. The village, which lies on the main road to Kolhāpur, had formerly a large Muhammadan population. Old tombs and ruined mosques may still be seen, while within its limits is a tank designed to supply water to Islāmpur.

Kāmilpur.—Cantonment and head-quarters of Attock District, Punjab. *See* CAMPBELLPORE.

Kamlagarh.—Ancient fortress in Mandī State, Punjab, situated in 31° 48′ N. and 76° 43′ E., near the south bank of the Beās. It consists of a line of detached bastions, castles, and towers, about 3 miles in length, constructed partly of masonry and partly of the natural sandstone rock. The principal stronghold crowns an isolated peak, whose precipitous sides tower 1,500 feet above the Beās, with double that elevation above sea-level. Kamlagarh played an important part in the earlier history of Mandī, and even Sansār Chand, Rājā of Kāngra, attacked the fortifications unsuccessfully. Their possession tempted the Mandī Rājā to revolt against the Sikhs; but General Ventura, the Sikh commander, succeeded in carrying them in 1840, in spite of the popular belief in their impregnability.

Kampil.—Village in the Kaimganj *tahsīl* of Farrukhābād District, United Provinces, situated in 27° 35′ N. and 79° 14′ E., 28 miles north-west of Fatehgarh. Population (1901), 2,366. Kampil is mentioned in the Mahābhārata as the capital of South PANCHĀLA, under king Drupada. Here his daughter, Draupadī, married the five Pāndava brethren. The villagers still show the mound where the Rājā's castle stood, and the place, a few miles away, where the *swayamvara*, or ceremony at which Draupadī chose her husband, took place. At the end of the thirteenth century, Kampil appears as a nest of highway robbers, against whom the emperor Ghiyās-ud-dīn Balban marched a force in person, and built here a fort. The town and its vicinity constantly gave trouble in later years, but the Rāthor inhabitants were gradually suppressed. West of the town stretches a long series of ruins in which ancient coins are found. There are a fine Jain temple and a primary school with about 60 pupils.

Kampli.—Town in the Hospet *tāluk* of Bellary District, Madras situated in 15° 25′ N. and 76° 36′ E., on the bank of the Tungabhadra Population (1901), 9,803. Until 1851 it was the head-quarters of the Hospet (then called the Kampli) *tāluk*, but it is now declining in importance. The town has an ancient history, having been a Chālukyan

capital in the eleventh century; and its fort, which stands on the river bank at the end of a most picturesque reach, must have been of some strength. It is now being deserted in favour of the more healthy suburb known as the *petta*, which is farther from the river and raised above the irrigated land, and consequently less malarious. The only industry is the weaving of silk fabrics. It is doubtful whether even this is what it was a dozen years ago. The weavers are unprogressive, and most of them have fallen into the hands of the local capitalists, who advance materials and take the stuffs they weave, paying them only for their labour. The town is surrounded by irrigated land watered from channels from the Tungabhadra, and a good deal of coarse sugar is still made; but this does not command its former price, having been largely ousted by the superior article refined by European processes.

Kamptee (*Kāmthi*).—Town with cantonment in Nāgpur District, Central Provinces, situated in 21° 13′ N. and 79° 12′ E., on the Bengal-Nāgpur Railway, 10 miles from Nāgpur city and 529 from Bombay. It stands on the right bank of the Kanhān river, and the cantonment extends in a long narrow line beside the river, with the native town to the south-east. The population at the four enumerations was as follows: (1872) 48,831; (1881) 50,987; (1891) 53,159; (1901) 38,888. The population in 1901 included 26,379 Hindus, 9,852 Muhammadans, and 1,851 Christians, of whom 1,036 were Europeans and Eurasians. Kamptee is the fourth town in the Province in respect of population. The ordinary garrison consists of a battalion of British infantry, one of Native infantry, and a field battery. Kamptee was until recently the head-quarters of the general commanding the Nāgpur district; but this appointment has now been abolished, and the garrison is at present commanded from Ahmadnagar. The cantonment was established in 1821, and was made the head-quarters of the Subsidiary force maintained by the British under treaty with the Nāgpur Rājā. The whole town is included in the cantonment. The receipts and expenditure of the cantonment fund during the last decade averaged 1·1 lakhs. In 1903-4 the receipts were Rs. 1,06,000 and the charges Rs. 1,18,000. During Marāthā rule traders flocked to Kamptee on account of the comparative immunity from taxation which they enjoyed within the cantonment, and a large commercial town thus grew up alongside it. Owing to its favourable situation on the roads leading to Nāgpur from the Sātpurā plateau, Kamptee for a long period monopolized the trade from this area; and it is only within comparatively recent years that the advantages possessed by Nāgpur, as the larger town and capital of the Province, have enabled it gradually to attract to itself the commercial business of Kamptee. To this transfer of trade are to be attributed the stationary or declining figures

of population during the last thirty years, and the construction of the Sātpurā railway may tend to accelerate the process. The town contains three cotton-ginning and two pressing factories with a total capital of 2·4 lakhs, three of which were opened in 1891 and 1892 and the others since 1900. Muhammadan hand-weavers produce the cheaper kinds of cloth. Weekly cattle and timber markets are held, and the town contains one printing press. The Cantonment Magistrate, who has also the powers of a Small Cause Court Judge, has jurisdiction over the cantonment. The educational institutions comprise a Government high school, one English middle, two vernacular middle, and eleven primary schools. The Convent of St. Joseph maintains a boarding and day school for European children, teaching in some cases up to the matriculation standard, orphanages for native children, and a dispensary. Medical relief is afforded to the civil population at the Cantonment General Hospital and a branch dispensary in the town.

Kāmrūp.—District of Eastern Bengal and Assam, lying between 25° 43′ and 26° 53′ N. and 90° 39′ and 92° 11′ E., with an area of 3,858 square miles. It is bounded on the north by Bhutān; on the east by Darrang and Nowgong; on the south by the Khāsi Hills; and on the west by Goālpāra. The Brahmaputra flows through the District, and divides it into two unequal portions, about two-thirds of the total area being on the right or northern bank. South of the Brahmaputra the country is much broken by the outlying spurs of the Khāsi Hills which project into the valley, and low ranges of hills appear even on the north bank of the river. The scenery is thus pleasingly diversified, and the Gauhāti reach, enclosed in a circle of forest-clad hills, is extremely beautiful. The centre of the District is a broad plain, the greater part of which is covered with rice-fields, with dotted groves of bamboos concealing the villages of the Assamese; but farther north the land becomes too high for rice cultivation, and grassy uplands stretch to the foot of the outlying ranges of hills. The principal tributaries of the Brahmaputra are: on the north bank, the BARNADĪ, which once formed the boundary between Darrang and Kāmrūp; the Baraliā; the Chaulkhoā, which empties itself into the Manās; and the MANĀS, a large river which formerly marked the boundary of Goālpāra District. These rivers take their rise in the Himālayas, and the swiftness of their current frequently causes them to cut away their banks and change their courses. At the foot of the northern hills there is a tract of gravel and sand, in which many of the minor streams vanish, to appear again some distance farther off. On the south bank the only rivers of any importance are the DIGRU, the KULSI, and the Singrā. All over the District are found numerous swamps, or *bīls*, in many

Physical aspects.

of which the water lies even during the dry season. The most extensive are the Dipār *bīl*, about 8 miles west of Gauhāti, the Bildārā *bīl* in the Palāsbāri *tahsīl*, and the Asuchi *bīl* in the Hājo *tahsīl*.

The plain is of alluvial formation, composed of sand and clay in varying proportions. South of the Brahmaputra low ranges of gneissic rock project from the Khāsi Hills, and outliers are found on the north bank of the river.

The base of the southern hills is forest-clad; but to the north the country is covered with short grass, and is destitute of trees. High reeds and jungle grass spring up in great luxuriance on all low-lying land, and the forest is rendered beautiful by great ferns and the graceful foliage of the creeping cane.

Elephants and bison are still found in the low hills, and rhinoceros and buffalo in the marshes; tigers, leopards, bears, hog, and several species of deer are not uncommon. In 1904, 12 men and 2,709 animals were killed by wild beasts, though rewards were paid for the destruction of 201 tigers and leopards. The principal kinds of small game are hares, partridges, wild duck and geese, florican, and snipe.

The climate of the District does not differ materially from that of the rest of the Assam Valley; between November and the middle of March it is cold and pleasant, but during the rest of the year warm and damp. The *tarai* at the foot of the Khāsi Hills is particularly unhealthy. The prevailing direction of the wind is from the north-east, and during the cold season fogs gather daily in the early morning over the valley of the Brahmaputra.

The annual rainfall at Gauhāti averages only 67 inches, but near the hills 80 or 85 inches are received. The rainfall, though invariably abundant, is sometimes unfavourably distributed, and the rice crop suffers from the premature cessation of the monsoon. The greatest natural calamity from which the District has suffered was the earthquake of June 12, 1897. The Government offices and nearly all masonry buildings in Gauhāti were wrecked, and roads and bridges were destroyed. The drainage of the District was obstructed, the levels appear to have been altered, and large tracts of fertile land were rendered unfit for cultivation. After the earthquake the floods of the Brahmaputra were of exceptional severity, and agriculture received a serious check.

History.

The District originally formed part of the ancient Hindu kingdom of Kāmarūpa, which, according to the Jogini Tantra, included the whole of the Brahmaputra Valley, with Rangpur and Cooch Behār. One of the earliest kings, Bhagadatta, whose capital was situated at Prāgjyotishapura, the modern Gauhāti, is said to have fought on the losing side in the great war

of the Mahābhārata; but the history of the country up to a recent date is involved in great obscurity. In the sixteenth century Kāmrūp formed part of the territory of the Koch dynasty. The king, Nar Nārāyan, waged successful war against the Ahoms and the Rājās of Cāchār, Jaintiā, Sylhet, and Tippera; but the kingdom was divided, and the territory east of the Sankosh, which includes the present Kāmrūp, was allotted to Nar Nārāyan's nephew, Raghu Rai, while his son Lakshmī Nārāyan retained as much of the kingdom as lay west of that river. Disputes soon broke out between the two branches of the family, and the Muhammadans were called in on one side, the Ahoms on the other. The struggle between these powers continued for some years, but the Muhammadans at last succeeded in inflicting a decisive defeat upon their opponents, and occupied Gauhāti in 1637. This was not, however, the first occasion on which the Muhammadans had invaded Assam. At the beginning of the thirteenth century expeditions had been dispatched up the valley of the Brahmaputra; but the raiders, though for a time successful, were unable to retain their hold upon the country. Two of their leaders in the sixteenth century are still well remembered: Turbak, the remnants of whose army were finally converted into the degraded Muhammadan caste known as Moriās; and Kālā Pāhār, who is said to have partially destroyed the sacred temples at Kāmākhya and Hājo. The last and greatest invasion was that of Mīr Jumla in 1660–2. This general, though at first successful, was subsequently overcome by the difficulties of the climate and the country, and was compelled to retreat with the loss of all his guns. The Muhammadan frontier was then fixed at Goālpāra, and Kāmrūp was absorbed into the Ahom kingdom, Gauhāti becoming first the head-quarters of the viceroy of Lower Assam, and at the end of the eighteenth century of the Rājā himself. By this time the power of the Ahom king had been completely undermined, and Captain Welsh was sent into the valley in 1792 to put a stop to the anarchy then prevailing. He was recalled two years later; and Assam again became a scene of internecine struggles, which culminated in the occupation of the Burmese, who ravaged the Province with fire and sword. In 1826, after the first Burmese War, Kāmrūp, with the rest of the valley of the Brahmaputra, was ceded to the British. The Duārs at the foot of the Himālayas remained, however, in possession of the Bhotias till 1841. In that year they were annexed and compensation paid to the hillmen for their loss of territory. On the outbreak of the Bhutān War in 1864, Dewāngiri was occupied by British troops, but they subsequently retired from the post with undue precipitation. The village was recaptured in April, 1865, and since that date has formed a part of British territory. The head-quarters of the Assam Division were originally fixed at Gauhāti; but in 1874, when Assam

was separated from Bengal, Shillong was chosen as the seat of government.

Gauhāti contains numerous tanks and temples, and is surrounded by extensive earthworks, which bear witness to the importance of the kingdom of which it formed the capital. The remains of a large number of Hindu temples are scattered over the District, the most important being those at KĀMĀKHYA just below Gauhāti, and at HĀJO, about 15 miles by road north-west of that place.

Population.

The population of the District at the last four enumerations was: (1872) 561,681, (1881) 644,960, (1891) 634,249, and 1901 (589,187). The decrease in the last two decades is due to the ravages of a peculiarly malignant form of fever known as *kalā azār*, and to general unhealthiness; but it is believed that since 1899 the population has been again increasing. The District is divided into two subdivisions, GAUHĀTI and BARPETĀ, with head-quarters at the towns of the same name, and contains 1,716 villages. The following table gives the area, number of towns and villages, and population, according to the Census of 1901:—

Subdivision.	Area in square miles.	Number of Towns.	Number of Villages.	Population.	Population per square mile.	Percentage of variation in population between 1891 and 1901.	Number of persons able to read and write
Barpetā	1,274	1	600	115,935	91	- 14·5	4,520
Gauhāti	2,584	1	1,116	473,252	183	— 5·0	16,228
District total	3,858	2	1,716	589,187	153	— 7·1	20,748

Hindus formed 69 per cent. of the population, and Muhammadans 9 per cent., while 21 per cent. were animistic tribesmen. How little the District has been affected by outside influences can be judged from the fact that 83 per cent. of the population in 1901 spoke Assamese and 11 per cent Bodo or plains Kāchārī; while only 3 per cent. of the population enumerated there had been born outside its boundaries. Kāmrūp is further peculiar in that the women exceeded the men in numbers.

The principal Hindu caste is the Kalitā (115,600), a respectable caste supposed to be the descendants of Aryans who had immigrated to Assam before the functional division of caste was introduced into Bengal. The Koch, into whose ranks converted Kāchāris are received, are also numerous (93,800), and so are the Kewats (41,600). The Shāhās (14,100) are by tradition liquor-sellers, but have taken to agriculture, and have succeeded in obtaining a respectable position in Assamese society. The District contains many shrines, and Brāh-

mans (23,100) are found in much larger numbers than in the rest of the Assam Valley. The principal aboriginal tribes are the Kāchāris (92,100), and the Rabhās, who are closely akin to them (16,300), the Mīkīrs (10,600), the Gāros, and the Lalungs. All of these tribes are members of the great Bodo race, which is supposed to have entered the valley from North-Western China many centuries ago. Agriculture supports 81 per cent. of the population, a lower proportion than in the other plains Districts of the Province. The number of priests, fishermen, and beggars is, however, unusually high, the strength of the last-named class giving some indication of the misfortunes which Kāmrūp has recently experienced. There is a branch of the American Baptist Mission at Gauhāti, and the great majority of the native Christians (1,379) in 1901 are members of the sect.

Agriculture.

Broadly speaking, the District on either side of the Brahmaputra is divided into three belts of land with different characteristics. The first is the *chapari*, or tract bordering on the river, which is subject to deep inundation during the rains, but dries rapidly at the approach of the cold season. The soil is usually a light loam, on which rank jungle springs up with great rapidity, but which yields, when cultivated, excellent crops of mustard and summer rice, though the latter is liable to be destroyed by an early rise of the river. Permanent villages are never found here, and the land is generally abandoned after it has been cultivated for two or three years. This riverain tract merges gradually into a broad plain, in which transplanted winter rice (*sāli*) is the staple crop; in the intermediate stage, where the water lies too deep to admit of transplantation, *bao*, a long-stemmed variety of winter rice, is sown broadcast. Lastly, the high land under the hills is well drained and free from risk either of flood or drought, as it can be irrigated from the hill streams. Here the staple crop is *sāli*, or transplanted *āhu* (*kharma*), which is reaped in November and yields a much larger out-turn than the same rice when sown broadcast. The soil of the District varies from pure sand to a stiff clay which is useless for any kind of crop. The most fertile variety is a deep soft loam, which is found in the lowest part of the rice basins. The crops depend, however, more on the water-supply than upon the intrinsic fertility of the soil, and in the central and submontane tract the supply of water is generally adequate. The chief danger to which agriculture is exposed is from floods, which have been especially severe since the drainage channels silted up at the time of the earthquake of 1897. Steps have, however, been taken by both Government and the villagers to re-excavate these channels.

The main agricultural statistics of the District are shown in the table on the next page, in square miles.

The staple food-crop is rice, which in 1903–4 covered 718 square

miles, or 76 per cent. of the total cropped area. Rather more than half of the rice crop was *sāli*, 31 per cent. was *āhu*, and 20 per cent. *bao*. Other important crops are mustard (95 square miles), pulse (35), and sugar-cane. Mustard and pulse are usually grown along the banks of the Brahmaputra, on land afterwards occupied by summer rice.

Subdivision.	Area shown in revenue accounts.			Forest area.
	Settled.	Unsettled.	Cultivated.	
Barpetā . .	199	1,075	159	...
Gauhāti . . .	825	1,759	639	149
Total	1,024	2,834	798	149

When Gauhāti was the head-quarters of the Commissioner of Assam, a considerable number of tea gardens were opened in the neighbourhood of the town. In many cases, however, the sites were badly chosen, and the tea was planted on steep and rocky hill-sides, where the rain washed all the fertility from the soil. The seed employed was inferior, the rainfall insufficient, and a large proportion of the gardens proved to be unable to compete with the more prosperous estates of Upper Assam. The result was that the area under tea fell from 6,302 acres in 1882 to 3,659 in 1904. In the latter year 19 gardens yielded 735,000 lb. of manufactured tea, and gave employment to 7 Europeans and 2,416 natives, most of whom had been brought from other parts of India.

The cultivation of jute on a commercial scale has recently been introduced, but the industry is still in its infancy; and, apart from this, nothing has been done to develop the staples of the District, or to break up the large area of unsettled waste land. On the contrary, the area settled at full rates decreased by 12 per cent. between 1891 and 1901, owing to the decline in population and the injury done by the earthquake. Since 1901 there has, however, been a satisfactory extension of cultivation. Agricultural loans were first made in 1902, and during the next three years about Rs. 49,000 was advanced.

The Assamese are utterly indifferent to all the laws of breeding and to the comfort of their animals, and the native cattle are in consequence poor undeveloped creatures. The indigenous buffaloes are, however, larger and stronger than those of Bengal. The ponies brought down from the hills by the Bhotias are sturdy little animals, and the Bhutān cattle also are a fine breed, but cannot be obtained in large numbers.

The only irrigation works in the District are the small channels dug by the Kāchāri villagers in the submontane tracts, to bring the water of the hill streams to their fields. Some channels, though only a few feet wide, are several miles long, and are capable of irrigating 3,000 or

4,000 acres. They are constructed by the combined labour of the villagers without any intervention on the part of Government. Embankments for flood protection and drainage channels are, however, more necessary than irrigation works.

There were 30 forest Reserves in Kāmrūp in 1903–4, with a total area of 149 square miles. The principal Reserves are those at Pantan and Barduār (59 square miles), which are situated on the banks of the Kulsi river about 30 miles west of Gauhāti; and many of the other forests are small patches, only one or two square miles in area. By far the most important timber tree in Kāmrūp is *sāl* (*Shorea robusta*); but *tita sapa* (*Michelia Champaca*), *ajhar* (*Lagerstroemia Flos Reginae*), *sam* (*Artocarpus Chaplasha*), and *gunserai* (*Cinnamomum glanduliferum*) are also found. The area of 'unclassed' forests was 2,294 square miles, and, though only a small portion is actually covered with timber, the out-turn from these forests is larger than from the Reserves. There is a small plantation of teak and rubber-trees on the Kulsi near the Barduār forest.

No minerals are worked in Kāmrūp, but deposits of lime are said to exist at the foot of the Bhutān hills.

Trade and communications.

Manufactures, apart from tea, are unimportant. In each house there is a rough loom, on which the women of the family weave silk and cotton cloths. The silk cloths, which are usually made from the thread of the *eri* worm (*Attacus ricini*), are often sold; the cotton cloth is reserved for home use. Gold filigree-work is made at Barpetā; but, though there are a number of jewellers in the District, articles are made only to order. Brass and bell-metal utensils, iron hoes and choppers, and rough pottery are also manufactured, though not in large quantities. Canoes are hollowed out of the trunks of large trees, the people of Barpetā being specially proficient in the art. Mustard oil is prepared in the ordinary country mill; and at Gauhāti there are two steam-mills, where flour is ground, cotton ginned, and oil expressed.

The general trade of the District is almost entirely in the hands of Mārwāris from Rājputāna; but there are a certain number of Muhammadan shopkeepers, and at Barpetā the Assamese, whose wits have been unusually sharpened by their contest with nature in that inhospitable spot, are as keen traders as the Mārwāris themselves. The principal exports are mustard seed, tea, cotton, lac, timber, and silk cloths. The articles received in exchange are rice, cotton yarn and piece-goods, grain and pulse, kerosene and other oils, hardware, and salt. The chief centres of trade are GAUHĀTI, BARPETĀ, SOĀLKUCHI, PALĀSBĀRI, RANGIĀ, NALBĀRI, Baramā, and Tāmulpur, while there are permanent shops at all the *tahsīl* head-quarters. Most of the internal trade is, however, transacted at the markets, of which a large

number are held in different parts of the District. In the interior, as well as at Gauhāti, the principal shopkeepers are Mārwāris, who sell piece-goods, salt, grain, and oil, and not infrequently opium, and buy silk cloths, rice, and mustard seed, for which they often make advances before the crop is cut. The bulk of the trade is with Bengal, and is carried by steamer, though when the rivers rise in the rains country boats penetrate into the interior. The only foreign trade is with Bhutān, whose subjects come down through the DEWĀNGIRI, SUBANKHĀTĀ, and Kakilābāri Duārs to fairs held at Darrangā and Subankhātā, and starting from these centres travel about the country. The principal imports from Bhutān are rubber, ponies, and blankets; the exports are cotton and silk cloths.

The Assam-Bengal Railway runs for 33 miles through the District to the Nowgong boundary, connecting Gauhāti with Dibrugarh, and with Chittagong via the North Cāchār hills. Through railway communication to Calcutta will be provided by a line now under construction, which will run from a point just opposite Gauhāti to Golakganj on the Dhubri extension of the Eastern Bengal State Railway. A daily service of passenger steamers and large cargo boats, owned by the India General Steam Navigation Company and the Rivers Steam Navigation Company, ply on the Brahmaputra, calling at Gauhāti, Soālkuchi, Palāsbāri, and Kholābānda. During the rains country boats come from Bengal, and proceed up the various rivers into the interior. Two trunk roads pass through the District, along the north and south banks of the river. In 1903–4 there were 16 miles of metalled and 160 miles of unmetalled roads maintained from Provincial funds, and 371 miles of unmetalled roads under the local boards. Generally speaking, Kāmrūp is well supplied with means of communication. A steam ferry crosses the Brahmaputra at Gauhāti.

As in other parts of Assam, famine is unknown in Kāmrūp; but in 1901 the rice crop was the poorest that had been reaped for many years, and there was local scarcity which necessitated some assistance from Government.

Administration.

For general administrative purposes, the District is divided into two subdivisions: GAUHĀTI, under the immediate charge of the Deputy-Commissioner; and BARPETĀ, usually entrusted to a native magistrate. The sanctioned District staff includes five Assistant Magistrates, a Forest officer, and an Engineer who is also in charge of the Khāsi and Jaintiā Hills, and whose head-quarters are at Shillong.

The Deputy Commissioner has the powers of a Sub-Judge, and certain of the Assistant Magistrates exercise jurisdiction as Munsifs. Appeals, both civil and criminal, lie to the District and Sessions Judge of the Assam Valley, whose head-quarters are at Gauhāti, while the

High Court at Calcutta is the chief appellate authority. The Assamese are a quiet and peaceful people, and there is not much serious crime.

The land revenue system does not differ materially from that in force in Assam proper, described in the article on ASSAM. The settlement is *ryotwāri*, being made direct with the actual cultivators of the soil, and is liable to periodical revision. The District contains a large area of waste land, much of which is fit for permanent cultivation; and the settled area in 1903-4 was only 27 per cent. of the total area, including rivers, swamps, and hills. Mustard and summer rice are seldom grown on the same land for more than three years in succession, and the villagers are allowed to resign their holdings and take up new plots of land on giving notice to the revenue authorities. In 1903-4, 31,000 acres were resigned and 47,000 acres of new land taken up. Fresh leases are issued every year for this shifting cultivation, and a large staff of *mandals* is maintained to measure new land, test applications for relinquishment, and keep the record up to date. Kāmrūp, like the rest of Assam proper, was last settled in 1893, and the average assessment per settled acre assessed at full rates in 1903-4 was Rs. 2-7-2 (maximum Rs. 4-2-0, minimum Rs. 1-11-0). The District is now being resettled after a detailed examination, in which the different classes of land have been more carefully discriminated. In recent years the people have suffered severely from exceptional unhealthiness and from the earthquake of 1897, which altered the levels of the country, causing obstructions to drainage and deposits of sand. An abatement of Rs. 60,000 has been made in the land revenue of the tracts most seriously affected. A special feature of the District is the large number of estates held revenue free (*lākhirāj*) or at half-rates (*nisfkhirāj*). These cover respectively an area of 53 and 229 square miles, and represent grants made by the Ahom Rājās, usually to priests or temples.

The following table shows collections of land revenue and total revenue in recent years, in thousands of rupees:—

	1880-1	1890-1	1900-1	1903-4.
Land revenue	9,12	9,52	11,92	12,30
Total revenue	3,25*	14,90	17,38	18,56

* Exclusive of forest receipts.

Outside the municipalities of Gauhāti and Barpetā, the local affairs of each subdivision are managed by a board, presided over by the Deputy-Commissioner and the Subdivisional Officer respectively. The expenditure of these boards in 1003-4 amounted to about Rs. 1,43,000, nearly two-fifths of which was devoted to public works.

For the purposes of the prevention and detection of crime, the District

is divided into 17 investigating centres, and the civil police force consisted in 1904 of 46 officers and 282 men. There are no rural police, their duties being discharged by the village headmen. During the winter 2 officers and 31 men of the Gāro Hills military police battalion are stationed in Kāmrūp, to hold the two outposts of Subankhātā and Darrangā. A District jail is maintained at Gauhāti, and a magistrate's lock-up at Barpetā.

As regards education, Kāmrūp is fairly representative of Assam. The number of pupils under instruction in 1880–1, 1890–1, 1900–1, and 1903–4 was 6,261, 10,437, 12,346, and 12,951 respectively. Education has made considerable progress during the past thirty years, and nearly three scholars were under instruction in 1903–4 for every one in 1874–5. At the Census of 1901, 3·5 per cent. of the population (6·8 males and 0·2 females) were returned as literate. There were 285 primary, 15 secondary, and 5 special schools in 1903–4. The number of female scholars was 431. The enormous majority of the pupils under instruction are only in primary classes, and the number of girls who have advanced beyond that stage is extremely small. Of the male population of school-going age, 25 per cent. were in the primary stage of instruction, and of the female population of the same age less than one per cent Among Muhammadans the percentage of the scholars of each sex to the male and female population of school-going age was 27 and 1 respectively. An Arts college is maintained by Government at Gauhāti. The total expenditure on education in 1903-4 was Rs. 1,17,000, of which Rs. 21,000 was derived from fees. About 29 per cent. of the direct expenditure was devoted to primary schools.

The District possesses 2 hospitals and 8 dispensaries, with accommodation for 33 in-patients. In 1904 the number of cases treated was 64,000, of whom 600 were in-patients, and 1,100 operations were performed. The expenditure was Rs. 16,000, the greater part of which was met from Local and municipal funds.

In 1903–4, 39 per 1,000 of the population were successfully vaccinated, which was considerably below the proportion for the Province as a whole. Vaccination is compulsory only in Gauhāti town.

[Sir W. W. Hunter, *A Statistical Account of Assam*, vol. i (1879), E A. Gait, 'The Koch Kings of Kāmarūpa,' *Journal of the Asiatic Society of Bengal*, vol. lxii, p. 4; H C. Barnes, *Assessment Reports, Bajāli, Bijni, Barbhag, Baska, Patidarang, Kamdia, and South Bank groups* (1905); B. C. Allen, *District Gazetteer of Kāmrūp* (1905).]

Kāmta-Rajaulā.—One of the CHAUBE JĀGĪRS in Central India, under the Political Agent in Baghelkhand, with an area of 13 square miles, and a population (1901) of 1,232. The chief is a Kāyasth by caste, the first grantee, Rao Gopāl Lāl, having been the family *vakīl*

of the Chaube family of Kālinjar. The grant was made in 1812, when the Chaube family received their shares. A *sanad* of adoption was granted in 1862. The present holder is Rao Rām Prasād, who succeeded in 1892. The *jāgīr* consists of 3 villages. Of the total area, 899 acres are cultivated, 126 being irrigable. The revenue is Rs. 2,500 a year. The chief place is Rajaulā, situated in 25° 11′ N. and 80° 51′ E., 8 miles south of Karwī station on the Jhansi-Mānikpur section of the Great Indian Peninsula Railway. Population (1901), 211.

Kāmthī.—Town and cantonment in Nāgpur District, Central Provinces. *See* KAMPTEE.

Kamudi.—Town in the Mudukulattūr *tahsīl* of the Rāmnād estate, Madura District, Madras, situated in 9° 24′ N. and 78° 23′ E. The population (1901) is 6,854, of whom 1,000 are Musalmāns. It contains a large Siva temple, which has been the subject of a famous law-suit, the Shānāns, a caste of toddy-drawers and merchants, claiming the right to enter within its precincts and the majority of the rest of the Hindus opposing their claim. The town participated in the riots which were caused in 1899 by this and other pretensions of the Shānāns, and a small force of punitive police is now quartered on it. Brass and bell-metal vessels are manufactured here.

Kanaigiri.—*Tāluk* and town in Nellore District, Madras. *See* KANIGIRI.

Kanara, North.—District in the Southern Division of Bombay, lying between 13° 53′ and 15° 32′ N. and 74° 4′ and 75° 5′ E., with an area of 3,945 square miles. It is bounded on the north by Belgaum District; on the east by Dhārwār District and the State of Mysore; on the south by South Kanara in Madras; on the west for about 76 miles by the Arabian Sea; and on the north-west by the territory of Goa. The District is not to be confounded with the District of South Kanara in Madras. North Kanara is the most southerly of the coast Districts of the Bombay Presidency.

Physical aspects.

The Western Ghāts, varying in height from 2,500 to 3,000 feet, run through the District from north to south, dividing it into two parts: namely, the uplands or Bālāghāt (area, 2,639 square miles), and the lowlands or Payanghāt (area, 1,306 square miles). The coast-line is broken only by the Kārwār headland in the north, and by the estuaries of four rivers and the mouths of many smaller streams, through which the salt water finds an entrance into numerous lagoons winding several miles inland. The shore, though generally sandy, is in some parts rocky. Fringing its margin, and behind the banks of the brushwood-bordered lagoons, rise groves of coco-nut palms; and inland from this line of palms stretches a narrow strip of level rice land. The whole

breadth of the lowlands, never more than 15 miles, is in some places not more than 5 miles. From this narrow belt rise a few smooth flat-topped hills, from 200 to 300 feet high; and at places it is crossed by lofty, rugged, densely-wooded spurs, which, starting from the main range of the Western Ghāts, maintain almost to the coast a height of not less than 1,000 feet. Among these hills lie well tilled valleys of garden and rice land. The plateau of the Bālāghāt is irregular, varying from 1,500 to 2,000 feet in height. In some parts the country rises into well-wooded knolls, in others it is studded by small, isolated, steep hills. Except on the bank of streams and in the more open glades, the whole is one broad waste of woodland and forest. The open spaces are dotted over with hamlets or parcelled out into rice clearings.

Both on the coast, where the green curtain of the forest forms a pleasing background to the long stretches of white sand, on which the rollers break beneath tall palms or dense patches of casuarina, and above the *ghāts* in the vistas of giant hills covered with evergreen jungle, the scenery is of rare beauty. Owing to the absence of railway communication the greater part of the District is seldom visited, except by officials or sportsmen; but the traveller who strays into these unfrequented paths will find surroundings that compare favourably in picturesqueness with any of nature's handiwork.

Stretching across the watershed of the Western Ghāts, North Kanara contains two sets of rivers—one flowing west to the Arabian Sea, the other east towards the Bay of Bengal. Of the eastern streams, the Varadā, a tributary of the Tungabhadra, alone calls for mention. Of those that flow westwards, four are of some importance—the Kālīnadī in the north, the Gangāvali and Tadri in the centre, and the Sharāvatī in the south. The last of these, plunging over a cliff 825 feet in height, about 35 miles east of Honāvar, forms the famous GERSOPPA FALLS. Along the coast the quality of the water is good, and the supply throughout the year abundant.

The prevailing rocks are granite and trap, the former largely predominating. At the base of the granite hills a laterite formation is common. Along the coast from Kārwār to Honāvar the surface rock is almost entirely hard laterite, a stone admirably adapted for building purposes.

The humid climate and the high and equable temperature of North Kanara account for the predominance of heavy forest and the moisture-loving types of tropical vegetation. Teak prevails in loose lighter-coloured soils. Bamboos of several valuable kinds grow over the whole of the District. The chief liquor-yielding tree is the coco-nut, which is luxuriant in Kārwār, Kumta, Ankola, and Honāvar. Liquor is also manufactured from the *baini* (*Caryota urens*), which grows

profusely in the Ghāt forests. A detailed list of important trees, shrubs, and common herbs is given in Sir James Campbell's *Bombay Gazetteer*, vol xv, part i.

Kanara is almost the only part of the Bombay Presidency abounding in wild animals. Within the last thirty years elephants have been shot in the District, but they are now extinct. Tigers are numerous, though they have decreased considerably in recent years. Leopards are found in large numbers, and occasionally the black variety. In the western portion of the above-*ghāt* division, bison are common. Black bear, *sāmbar*, the ribbed-face and mouse deer are frequently met with; and at times the game are much harried by packs of wild dogs who pursue the deer relentlessly till they succumb from exhaustion. In the smaller forests *chītal* (*Cervus axis*) are not uncommon. The absence of legal restriction on the number of deer shot has, however, led to such a reduction in their numbers that rules are now being brought into force to save them from extinction. Twenty years ago a herd of eighty *chītal* was not unknown; it would be difficult nowadays to meet with eight together. Among game-birds are the peafowl, jungle-fowl, spur-fowl, partridge, snipe, quail, duck, widgeon, teal, the green and the imperial pigeon. Red squirrels are frequently seen. Snakes are numerous, including the hamadryad or king cobra, and the python.

The climate of different parts of Kanara varies greatly in salubrity. The coast portion, though moist, is healthy; but the forest tracts, especially the upland forests, are always malarious and at intervals are visited by especially fatal outbreaks. The most unhealthy time in the forests is the first two months of the rains and the four cold-season months. The valleys of the Kālīnadī and of its feeders are tracts where fever has a specially bad name. In December, January, and February the uplands at night and early morning are often wrapped in mist. From May 20 the south-west wind freshens and blows all day, and throughout the hot season the greater portion of the District is rendered agreeable by the prevalence of cool breezes. The temperature falls to 59° in November and rises to 91° in May. In March and April severe thunderstorms serve to cool the atmosphere The highest annual rainfall is in Bhatkal, 156 inches, while Mundgod records only 46. Of the two divisions of the District, the lowland or coast tract has a heavier rainfall than the upland. The annual rainfall at Kārwār averages 119 inches.

In the low-lying lands near the coast heavy rainfall and a stormy sea sometimes cause floods which damage the crops. In 1831 and again in 1848, owing to the tempestuous weather, the Honāvar coast lands were flooded with salt water and the crops destroyed.

In the third century B.C. Asoka sent missionaries to Banavāsi in

Kanara. From numerous inscriptions the country appears to have been controlled successively by the Kadambas of Banavāsi, the Rattas, the Western Chālukyas, and the Yādavas. It was for long a stronghold of the Jain religion. In the sixteenth century, when the Portuguese established themselves upon the coast, Kanara was subject to the Vijayanagar kings. It is said to have been extremely rich and prosperous, and for a long period firmly withstood the efforts of the Muhammadan Sultāns of the Deccan to extend their conquests to the south. Eventually, after the crushing defeat at Tālikotā (1565) and the sack of the capital city of Vijayanagar, the local chiefs of Kanara assumed independence. The Musalmāns then attacked the Portuguese settlements on the coast, but were unable to subdue them. The power of Bijāpur, however, was generally established over Kanara, and continued until the Marāthās obtained an ascendancy about 1675; but with the advance of Aurangzeb the country passed under the Mughals after the fall of Bijāpur in 1686, and the chiefs of Sonda and Bednur tendered their submission and tributes. Some time subsequent to 1700 the Marāthās again held Kanara. In 1763 Haidar Alī captured Bednur and obtained an immense booty. Sonda and the sea-coast were also subdued by him, and this brought Haidar into collision with the Marāthās; but he was able to maintain his conquests, and even to extend them as far north as the Kistna. War breaking out with the British, Tipū lost Honāvar in 1783. After the defeat and death of Tipu at Seringapatam, Sonda was annexed by the British in 1799. It included the Kanara country above the *ghāts*, which had been so desolated by war and pillage that there was little to govern except trees and wild beasts. This, with the coast tract taken from Haidar, was attached to the Madras Presidency in 1799, and placed in charge of Munro. It continued to form part of Madras until 1861. In that year, owing to its relations with Bombay and to the fact that the forests supplied the Bombay dockyard with timber for ship-building, North Kanara was transferred to the Presidency of Bombay.

History.

The chief buildings of interest in the District are the Jain temples of Banavāsi, Gersoppa, and Bhatkal. The temple at Banavāsi, which is attributed to the legendary Jakhanāchārya, is of considerable dimensions. It is ornamented with sculptured figures and designs, and has a short Dravidian spire. A loose slab in the courtyard bears an inscription of the second century A.D. At Nagarbastikere near the modern Gersoppa several Jain temples mark the site of the old town. They are much damaged by time, but the images representing the twenty-third and twenty-fourth Tīrthankars are still intact. They are finely modelled in black basalt. At Bhatkal fourteen Jain *bastis* are

still preserved, dating from the reign of Channabhaira Devī in the fifteenth century. At the same place are three stone tombs of European merchants who were buried in the year 1637. The numerous Hindu temples at Gokarn are ascribed to the fifteenth century. That of Mahābaleshwar is the most imposing. Many Kanarese inscriptions have been found at Bhatkal, Gersoppa, and Banavāsi. At Ulvi in Supa there are a few Lingāyat caves and the well of the Lingāyat saint Basava.

Population. The Census of 1872 showed a total population of 398,498, and in the next nine years the population increased to 421,932. By 1891 it had further increased to 446,453. The Census of 1901 recorded a population of 454,490, or 115 persons per square mile, residing in 8 towns and 1,281 villages. The *tāluka* distribution was:—

Tāluka	Area in square miles.	Number of Towns.	Number of Villages.	Population.	Population per square mile.	Percentage of variation in population between 1891 and 1901.	Number of persons able to read and write.
Haliyāl	1,057	1	105	35,122	53	+ 13	1,498
" Supa *petha*		1	132	21,008		− 35	959
Kārwār	281	1	54	58,460	208	+ 10	6,254
Yellāpur	760	...	119	22,814	52	− 2	1,590
" Mundgod *petha*		...	77	16,739		+ .06	845
Ankola	375	...	90	39,665	106	+ 7	2,357
Sirsi	490	1	244	53,232	109	− 1	6,341
Kumta	224	2	111	66,040	295	+ 5	7,700
Siddāpur	332	..	197	41,342	125	− 3	3,428
Honāvar	426	1	93	62,402	235	+ 5	5,227
" Bhatkal *petha*		1	59	37,666		+ 10	1,877
District total	3,945	8	1,281	454,490	115	+ 2	38,076

The chief towns are the municipalities of Kārwār, the head-quarters of the District, Kūmta, Bhatkal, Honāvar, and Sirsi. Owing to the large areas of forest the country above the *ghāts* is very sparsely populated, and in parts the population is decreasing. Much of the labour required to cultivate the upland tracts is therefore drawn from outside, the chief sources being Goa, Sāvantvādi State, and the Coondapoor *tāluk* of South Kanara. The language of the District is Kanarese, which is spoken by 57 per cent. of the total population. On the coast north of Gokarn and in the Supa *petha*, Konkanī replaces Kanarese as the common tongue.

Among the Brāhmans of Kanara (72,000) the most important are the Haviks (41,000), who are chiefly engaged in cultivation, being the owners of the areca-nut gardens of Sirsi and Siddāpur *tālukas*. They are reputed to have come originally from Southern India, and to have intermarried with the local cultivating caste of Gaudas. The second

Brāhman caste of importance is the Gaud Sāraswat (25,000), also known as Shenvi, with the two kindred sub-castes of Bardeskar and Kudaldeskar. The Gaud Sāraswats, who are very fair, claim a northern origin, and certainly came from Goa in the early part of the sixteenth century. They commonly eat fish, on which account other Brāhmans usually deny them the full status of their caste. Closely allied to the Gaud Sāraswats, and probably in former times one caste with them, are the Sāraswats (2,000), also known as Kushasthali or Shenvipaiki, many of whom have lately come from South Kanara. Between Sāraswats and Gaud Sāraswats there is chronic enmity. The establishments of the Government offices in the District are largely recruited from the former.

Apart from the Brāhman castes, the special interest of the North Kanara population centres in the primitive classes, such as the Halvakki Vakkals (4,000), Gamvakkals (12,000), Halepaiks (52,000), Mukris (5,000), Kumārpaiks (9,000), and Harakantras (6,000), who have much in common with the population of Malabar and South Kanara, and but little affinity with the rest of the Bombay Presidency. Among these primitive people there exists to the present day an organization by *bālis* or exogamous divisions strongly suggestive of totems. Thus, in the caste of a *bāli* named after the *sāmbar* deer, the members may not harm the animal, and do not intermarry. Descent is traced through females. With the gradual Brāhmanizing of these castes, such as the recent promotion of the Kumārpaiks to Kshattriya rank, it is to be expected that this organization by *bālis* may in time disappear. It has survived long enough, however, to throw valuable light on the nature and origin of the Marāthā *devaks* in the Deccan. The Marāthās in North Kanara number 48,000, and are all cultivators, apparently a relic of the former Marāthā dominion. Locally they are collectively described as *Arer* or Aryans. It is to be noted that the Gangāvali river is popularly considered the extreme southern limit of the Aryan race and languages in India South of this river the dark complexion, coarse features, Dravidian speech, and primitive customs of the people seem to lend much support to the popular view. Muhammadans (29,000) are distributed as follows: Pathāns, 3,000; Saiyids, 2,000; Shaikhs, 19,000. Besides the regular Muhammadan population (descendants of local converts to Islām), generally in poor circumstances. employed chiefly in agriculture and by Government as messengers and police, there are, in Kanara, two special bodies of foreign Muhammadan settlers. Of these, the more important and well-to-do are the Navāyats or seamen, representatives of the colonies of Arab merchants, of whom a remnant still exists along the whole coast-line of the Bombay Presidency, from Gogha southwards. The other foreign Musalmān community is the Sīdīs, descendants of African slaves formerly owned by the Portuguese. Although they have intermarried

for several generations with the low-caste population of the District, the Sīdīs have not lost their original peculiarities. They still possess the woolly hair and black skin of the pure negro. Some of them have been converted to Christianity, and some have become absorbed in the lower Hindu castes. They are for the most part very poor, and, settled in remote forests, live on the produce of little patches of rude cultivation.

The Christians in the District, who are almost all Roman Catholics, belong to two classes, the first of which consists of a few families from Goa, of Portuguese extraction, though much mixed by intermarriage with the natives of the country; the second are descendants of local converts to Christianity. Christians of the higher class are clerks, the rest principally artisans and labourers. The total number of native Christians in 1901 was 16,126, of whom 15,116 were Roman Catholics. The chief centres of Roman Catholic Christians are Honāvar, Kumta, and Kārwār. During their time of power and friendship with the Vijayanagar kings (1510–70), the Portuguese were probably allowed to make converts. But, as far as the record of treaties remains, it was during the early part of the eighteenth century, after the Mughals had withdrawn and when the Sonda chief in the north and the Bednur chiefs in the south were their close allies, that the Portuguese were most successful in spreading Christianity along the Kanara coast. When in 1784 Tipū succeeded in driving the British out of Kanara, he determined, on both political and religious grounds, to convert the native Christians of Kanara to Islām. After taking a secret census he dispatched troops who arrested 60,000, or, according to other accounts, 30,000 out of the 80,000 Christians found. The churches were dismantled and every trace of the Christian religion disappeared. Except infirm women and children, the prisoners were marched under a strong military escort to Seringapatam, then the capital of Mysore. The men were circumcised, the unmarried girls carried away as concubines, and many of the married women were badly treated. The change of climate from the coast to the Mysore uplands, harsh treatment, and the unhealthiness of some of the places to which they were sent, so broke the health of the converts that within a year 10,000 are said to have perished. A few Protestants are found in the towns of Kārwār and Honāvar. The only mission in the District is the Basel German Mission, with its head-quarters at Honāvar. It was established in 1845 and supports five schools.

Agriculture.

The cultivated portions of the lowlands are either sandy plains lying along the shore and the banks of rivers, or narrow well-watered valleys, which are for the most part planted with rice, coconut groves, and areca-nut gardens. In the uplands the soil is generally a stiff clay, retentive of moisture. Owing to the

want of inhabitants, and also to the malarious climate, many fertile and well-irrigated valleys lie waste and covered with forest; and difficulty is experienced in finding a sufficiency of labour for the lands already under cultivation.

The District is entirely *ryotwāri*. The chief statistics of cultivation in 1903-4 are shown below, in square miles:—

Tāluka.	Total.	Cultivated.	Irrigated.	Cultivable waste.	Forest.
Haliyāl	1,056	107	5	22	914
Kārwār	281	50	3	14	215
Yellāpur	760	71	2	111	563
Ankola	375	42	4	15	312
Sirsi	491	85	...	13	380
Kūmta	224	55	4	16	148
Siddāpur	334	46	...	6	264
Honāvar	426	72	12	22	325
Total	* 3,945	528	30	219	3,121

* These areas are based on the latest information.

Rice, of which there are many varieties, is the staple crop, the area in 1903-4 being 297 square miles. *Jowār*, chiefly grown in the Haliyāl *tāluka*, occupied one square mile. *Rāgi*, occupying 8 square miles, is grown in the hills for the food of the poorer classes. Pulses occupied 10 square miles, the chief being *mūg*, *kulith*, and *udid*, mostly grown in the coast *tālukas*. Sugar-cane and safflower are also grown to a considerable extent; and coco-nuts, areca-nuts, the lesser cardamoms (*Elettaria Cardamomum*), and pepper are produced in gardens in large quantities for home consumption and for export. The cultivation of coffee has been tried but proved unprofitable. Rice and garden lands are irrigated, the water being obtained from perennial streams. Near villages, especially on the coast, there are groves and avenues of Alexandrian laurel, which attains a large size. East Indian arrowroot grows wild and is also cultivated in some parts. The coconut palm is common along the coast, and is the chief liquor-yielding tree in the District. The palms, grown solely for their nuts, are calculated to yield, on good coast garden land, a net yearly profit of about Rs. 50 per acre. The areca-nut gardens, which are situated in the upland valleys, are surrounded by strong fences, within which are planted rows of coco-nut, jack, and mango trees. The *pān* or betel-leaf vine (*Piper Betle*) is extensively grown; also the areca palm. The upland gardens further contain pepper, cardamoms, ginger, plantains; and sometimes pummelo, orange, lime, and iron-wood trees (*nāg-chāmpa*) are found in these higher tracts. Of vegetables, the *bhendi* is largely grown on the coast; and the egg-plant, the water-melon, and various pumpkin gourds and cucumbers are common.

Formerly, in the more open parts of the forest, nomadic cultivation by brushwood burning (*kumri*) was carried on, principally by tribes of Marāthā extraction. The chief difficulty experienced in regard to cultivation in North Kanara since the practice of *kumri* was stopped is that known as the *betta* and *soppu* question. *Betta* is forest land assigned to the adjacent garden cultivation for the provision of *soppu* or leaf manure, which is indispensable in the cultivation of betel, pepper, and cardamoms. The improvident use of *betta* assignments, leading to the destruction of the forest on the land, results in a constant demand for further assignments, which cannot be continuously met unless the forest is to be entirely sacrificed to cultivation. Efforts are being made to come to a final settlement with each garden holder, by the allotment of an area of *betta* that is adequate for his requirements if treated with proper care. The salt marshes on the coast are offered for reclamation on very favourable terms. The cultivators have little recourse to advances under the Land Improvement and Agriculturists' Loans Acts. During the decade ending 1903-4 only 1·5 lakhs was advanced, of which Rs. 27,000 was lent in 1899-1900 and Rs. 67,000 during the last three years of the period.

The cattle are inferior everywhere, especially below the Ghāts. Kārwār, Kūmta, Ankola, and Honāvar contain few domestic animals of local breed. In Kārwār, Kūmta, and Honāvar the Goanese and other Christians rear pigs. Fowls are kept by all classes except Brāhmans.

Of the total area of cultivated land, 30 square miles or 6 per cent. were irrigated in 1903-4. Canals and wells supply about 2 square miles each, tanks 4 square miles, and other sources 22 square miles. The Māvinkop tank supplies 579 acres in the Haliyāl *tāluka*. The other special irrigation works are insignificant. In 1903-4 there were 18,205 wells and 5,534 tanks used for irrigation. Rice and garden crops are watered by runnels brought from streams or rivers. Near the coast in the dry season, dams of earth, stones, and tree branches are thrown across streams and the lands near are watered, the dam being removed at the close of the dry season or left to be swept away by the floods. Some places are watered by canals from ponds. Where the level of the water is below the field, if not very deep, it is raised in a basket hung on ropes and swung through the water by two men. If water has to be raised from a greater depth, the lever and bucket lift is worked by either one or two men; and, if the depth is still greater, it is drawn by the leathern bag worked by a pair of bullocks. When brought to the surface, the water is generally carried to the crop along the hollowed trunk of a palm-tree. The cost of constructing wells varies from Rs. 200 in sandy soil to Rs. 700 in the loam.

The forests of North Kanara are very extensive. Of the total area,

3,262[1] square miles are under forest, of which 548 square miles are 'protected.' The Forest department has charge of the whole area. The forests are divided into three sections: the table-land above the Ghāts, the main range, and the western spurs. The first of these contains splendid forests of teak, black-wood, and other trees 80 to 150 feet high, with fine clean stems 60 to 90 feet high and 5 to 12 feet in girth. The central belt has some of the finest forest of the District, including the magnificent teak tracts along the Kālīnadī, Bedti, and Gangāvali rivers. Bamboos of several valuable kinds grow over the whole of the District. The more important trees in the Kānara forests are *khair*, *hedu*, *siras*, *dhaura*, *kāju*, *moha*, *phanas*, *undi*, *sisu*, *abnus*, *jāmbul*, *nandruk*, *bhirand*, *nan*, mango, sandal-wood, tamarind, teak, and *hirda*.

Forests.

The forest revenue in 1903-4 exceeded 9 lakhs, mainly derived from the value of the timber sold from the dépôts. The cultivators are allowed to gather dry wood for fuel and leaves for manure, and to cut bamboos and brushwood for their huts and cattle-sheds. They are also supplied, free of charge, with such timber as they require for their own use. In former years most of the produce of the Kanara forests went westwards to the sea-coast, finding its chief markets in Bombay and Gujarāt. Of late years the sea trade has fallen off, and the bulk of the timber is now taken eastward to the open country in and beyond Dhārwār.

Iron ore is found in different places in the main range and spurs of the Western Ghāts, and in the island of Basavrājdrug about half a mile off the coast of Haldipur and about 2 miles from the town of Honāvar. The building stone in general use below the Ghāts is iron-clay or laterite, and sometimes granite or granitic schist and clay-slate. Above the Ghāts it is nearly always granite. In the same tract lime is usually made from limestone pebbles dug out of the banks of streams. On the coast, lime is prepared by burning cockle and oyster shells, which are abundant in most of the creeks and rivers, especially in the Kālīnadī.

In Kūmta and Banavasi there are skilled carvers of sandal-wood. A few hundred persons are employed in cutch boiling. In the Ankola *tāluka* are 131 salt-works, of which 107 were working in 1903-4 and produced 39,000 maunds of salt. With these exceptions North Kanara has no industries worthy of notice.

Trade and communications.

The ports of Bhatkal and Honāvar were known in the early centuries of the Christian era, and rose to importance in the fifteenth and sixteenth centuries as centres of the trade in horses from the Persian Gulf. At the present day the chief ports are Kārwār, Kūmta, Ankola,

[1] This figure is taken from the Forest Administration Report for 1903-4.

Honāvar, and Bhatkal, with a total trade in 1903-4 of 61 lakhs: namely, imports 20 lakhs, and exports 41 lakhs. The principal articles of export are rice, timber, coco-nuts, and spices; imports are piece-goods, metals, sugar, and spirits. Cotton from Dhārwār, formerly exported in large quantities from Kūmta, now goes by rail direct to the port of shipment for Europe.

The Southern Mahratta Railway crosses the north-west angle of the District. North Kanara is traversed from north to south by two main roads, one above the Ghāts and one along the coast, and by four main roads at right angles to them which climb the Ghāts and link up the principal coast towns with Belgaum, Dhārwār, and Mysore State. These roads run from Kadra to Belgaum via Supa, from Kārwār to Dhārwār via Yellāpur, from Kūmta to Dhārwār via Sirsi, and from Honāvar to Mysore territory via the Falls. In 1904 the District possessed 340 miles of metalled and 885 of unmetalled roads. All these, except 24 miles of metalled and 585 of unmetalled roads in charge of the local authorities, are maintained by the Public Works department. Avenues of trees are planted along 166 miles. There is steamer communication with Bombay during the fair season only, the steamers of the Bombay Steam Navigation Company calling at Kārwār, Gokarn, Kūmta, Honāvar, and Bhatkal twice a week on their way to and from Mangalore.

Famine.

North Kanara, with an assured rainfall, is practically exempt from famine. Bad seasons have been known, but the records point to the fact that local scarcity has only occurred owing to an influx of immigrants from the Deccan and Ratnāgiri, or to the depredations of dacoits causing hindrance to the arrival of supplies. The District suffered from these causes in 1806, when men were forced to feed on roots and rice husks, and about 3,000 persons are said to have died of want. In the famine of 1877 relief was necessary on a small scale.

Administration.

The Collector is usually assisted by a member of the Indian Civil Service and a Deputy-Collector. The District comprises the eight *tālukas* of ANKOLA, HONĀVAR, KĀRWĀR, KŪMTA, SIDDĀPUR, SIRSI, HALIYĀL, and YELLĀPUR. The *mahāls* or *pethas* are Supa attached to Haliyāl, Mundgod to Yellāpur, and Bhatkal to Honāvar *tāluka*. There are three Forest officers.

There is a District and Sessions Judge at Kārwār and four Subordinate Judges. The District Judge acts as a court of appeal from the Subordinate Judges, of whom one decides all original suits without limit in value. Three of the Subordinate Judges exercise the powers of a Small Cause Court. There are twenty-five officers to administer criminal justice in the District. Crime is not of a serious nature below the Ghāts, save an occasional case of forgery; while

above the Ghāts the most common offences are murder and dacoity, usually committed by persons coming from Dhārwār District.

The ancient Hindu revenue system involved theoretically the levy of a sixth part of the gross produce of the land as the share of the State; but in practice much more than a sixth was taken under various pretexts, either in kind or commuted into money. Probably in late years as much as one-third was exacted; but when Haidar Alī and Tipū held Kanara, the District was rack-rented to such a ruinous extent that population was diminished by a third, and only half the nominal revenue could be collected. When the District was taken over by the British, it was at first proposed to introduce a permanent settlement; but, in consideration of its desolate condition, large reductions of revenue were made as a temporary measure, and a permanent settlement postponed. Before many years the opinion was expressed that the Government demand was far too high and unequal in its incidence, and operated against the spread of cultivation; and after an unsuccessful attempt to fix the revenue upon an average of past receipts, a survey was begun in 1822. This was rather a rough inspection than an accurate survey, but it showed that the area under cultivation was larger than had been supposed. By fixing the assessments at about a third of the produce, the general rate of taxation was lowered; but the revenue was increased and paid without difficulty. Some progress was made with the survey on this principle, when it was discovered that, as the rate was the same on all lands, good or bad, the worst lands were being abandoned; and it was then decided to classify the lands according to their quality. In 1848 a minute was recorded by the Collector, demonstrating that it was not possible to assess the District satisfactorily without positive information as to the extent and capabilities of the land and the amount of Government as distinct from private lands, and pointing out that private owners were on all sides extending their boundaries at the expense of Government. Still it was considered that the expense of a survey could not be afforded, and nothing was done until the District was transferred from Madras to Bombay. On its transfer, a survey was introduced, the greatest difficulty being experienced in identifying boundaries of villages and fields. Between 1864 and 1867 a survey settlement was made in 199 villages above the Ghāts, the whole District being completed by 1891. As the settlement spread towards the coast, the landholders showed signs of opposition; for it was found that the old assessments were far short of even a moderate rent, and that the revenue would be doubled. They refused to pay the new rates, and appealed to the civil courts for redress, carrying their suits to the High Court, which finally upheld the right of Government to revise the assessments in Kanara, and since then opposition

has died out. The survey increased the land revenue by 13 per cent. in Honāvar, by 36 per cent. in Ankola and Kūmta, by 63 per cent. in Yellāpur, and by 115 per cent. in Kārwār. The revision survey of three *tālukas* was completed between 1895–1900, the assessment and area remaining unaffected. The total assessment on Government occupied land is now 10 lakhs. The average assessment per acre is: on 'dry' land 7 annas, on rice land Rs. 2–5, and on garden land Rs. 11–15.

Collections on account of land revenue and revenue from all sources have been, in thousands of rupees:—

	1880–1.	1890–1.	1900–1.	1903–4.
Land revenue . . .	7,60	2,96	10,18	13,58
Total revenue . . .	13,60	16,07	16,67	24,63

There are six municipalities in the District—KĀRWĀR, KŪMTA, SIRSI, HALIYĀL, HONĀVAR, and BHATKAL—besides two temporary municipalities at GOKARN and ULVI. Outside the limits of these, local affairs are managed by the District board and eight *tāluka* boards. The total income of these bodies in 1903–4 was Rs. 1,18,000, the principal source being the land cess. The expenditure was Rs. 1,38,000, including Rs. 58,000 expended on roads and buildings.

The District Superintendent of police is assisted by 2 inspectors. There are 14 police stations in the District; and the total strength of the police force is 646, including 12 chief constables, 138 head constables, and 496 constables. The District jail at Kārwār has accommodation for 252 prisoners. In addition, there are 10 subsidiary jails and one lock-up in the District, with accommodation for 180 prisoners. The daily average number of prisoners in 1904 was 189, of whom one was a female.

Compared with other Districts of the Presidency, Kanara stands fifth in point of literacy. In 1901, 8·4 per cent. of the population (15 males and 1·1 females) could read and write. Education has spread widely of late years. In 1865–6 there were only 16 schools, attended by 929 pupils. By 1880–1 the number of pupils had increased to 6,511, and by 1890–1 to 12,214. In 1903–4 there were 208 public and 26 private institutions, attended by 9,689 male and 2,062 female pupils. The public institutions include one high school, 10 middle, and 197 primary schools. Of these one is maintained by Government, 147 are managed by local boards, and 37 by municipalities, 19 are aided and 4 unaided. The total expenditure in 1903–4 was Rs. 82,500, of which Rs. 16,000 was derived from fees, and Rs. 17,000 from Local funds. Of the total, 66 per cent. was devoted to primary education.

There is a hospital at Kārwār, and 12 dispensaries, including a railway medical institution, are situated in the District, with accommodation for 85 in-patients. In these institutions 50,500 patients were treated in 1904, of whom 749 were in-patients, and 941 operations were performed. The total expenditure was Rs. 22,800, of which Rs. 10,060 was met from municipal and Local funds.

The number of persons successfully vaccinated in 1903–4 was 11,850, representing a proportion of 26 per 1,000, which slightly exceeds the average for the Presidency.

[Sir J. M. Campbell, *Gazetteer of the Bombay Presidency*, vol. xv (1883); *Selections from the Records of the Bombay Government*, No. CLXIII (1883).]

Kanara, South.—The more northerly of the two Districts on the west coast of the Madras Presidency, lying between 12° 7′ and 13° 59′ N. and 74° 34′ and 75° 45′ E., with an area of 4,021 square miles.

The vernacular name *Kannada* ('the black country') really refers to the black soil of the Kanarese-speaking country in the Southern Deccan. Though a historical misnomer as applied to the western seaboard, it yet marks its long subjection to the Kanarese princes who held sway over the Western Ghāts. The District is bounded on the north by the Bombay Presidency; on the east by Mysore and Coorg; on the south by Coorg and Malabar; and on the west by the Arabian Sea. The scarp or watershed of the WESTERN GHĀTS forms a natural frontier on the east. Approaching in the extreme north within 6 miles of the sea, the main line of this range soon swerves abruptly eastward round the Kollūr valley. Through this passes a road leading to the Honnār Magane. a small tract above the Ghāts belonging to South Kanara, but separated from it by Mysore territory. South of the valley rises the prominent sugar-loaf peak of Kodachādri, 4,411 feet; and thence. a precipitous cliff-like barrier with an average elevation of over 2,000 feet, the Ghāts run south-east to the KUDREMUKH, the highest peak in the District, 6,215 feet above sea-level. From this point they sweep east and south round the Uppinangadi *tāluk* to join the broken ranges of the Coorg and Malabar hills on the southern boundary of the District. South of the Kudremukh their character entirely changes. To the north few passes or prominent heights break the clearly defined watershed. On the south, deep valleys pierce the main line. flanked by massive heights such as Ballālrāyandurga (4,940 feet) and SUBRAHMANYA hill (5,626), while a profusion of forest-clad spurs and parallel ranges makes the scenery as varied and picturesque as any in the Presidency. West of the Ghāts a broken laterite plateau slopes gradually towards the sea. The general aspect of the District has been well described as a flatness uniform

Physical aspects.

but infinitely diversified. Much of the level surface is bare and treeless, and strewn with denuded granite boulders; but numerous miniature hill ranges, well wooded save where stripped for firewood near the coast, and bold isolated crags rising abruptly from the plain, prevent monotony.

Local tradition states that South Kanara was part of the realm wrested by the mythic Parasu Rāma from the sea, and modern geology seems to confirm the view that it is an ancient sea-bed. Water is at any rate the element to which the District owes its distinctive characteristics. The monsoons have furrowed innumerable valleys in the laterite downs, and fertilized them with rich soil washed down by the streams. Valley opens upon valley in picturesque and diversified similarity, all converging at last into the main valleys through which the larger rivers of the District run. Along the backwater which these rivers form at the coast are found large level stretches of fertile rice and garden land. From the sea, indeed, the coast-line presents an endless stretch of coco-nut palms, broken only by some river mouth or fort-crowned promontory where the main level of the plateau runs sheer into the sea.

The rivers of the District, though numerous, are of no great length. Raging torrents in the monsoon, owing to the enormous volume of water they have to carry off, in the hot season they shrink to shallow channels in the centres of their beds. Rapid in their early course, they expand at the coast into shallow tidal lagoons. In the extreme south a number of rivers rising in the Malabar and Coorg hills form a succession of backwaters giving water communication with Malabar. At Kāsaragod the CHANDRAGIRI (Payaswani) flows into the sea past an old fort of the same name. The Netrāvati, with its affluent the Kumāradhāri, and the Gurpūr river, which have a common backwater and outlet at Mangalore, drain the greater part of the Mangalore and Uppinangadi *tāluks*. The Swarnanadi and the Sītānadī drain most of the Udipi *tāluk* and have a common outlet at the port of Hangārkatta. A picturesque and important backwater studded with fertile islands is formed to the north of Coondapoor town by a number of rivers draining much of the Coondapoor *tāluk*.

The geology of South Kanara has not yet been worked out. It is probable that in the main it consists of Archaean gneisses of the older sub-groups, possibly with representatives of the upper thinner-bedded more varied schists (Mercāra schists) and plutonic igneous rocks where the District touches Mysore and Coorg. Laterite and ordinary coastal alluvium are common in the low-lying parts.

As might be expected from the heavy rainfall (145 inches), the flora of the District is exceedingly varied. The forests are both evergreen and deciduous, and the more important timber trees are mentione[illegible]

under Forests below. Of fruit trees, the coco and areca palms and the jack and mango are the most important. There are, however, few good grafted mango-trees, except in Mangalore town. The palmyra palm is found everywhere, and the cashew-tree is very common, especially near the coast The bamboo grows luxuriantly. Considerable stretches of sandy soil along the coast have been planted with the casuarina. The betel vine, yams of various kinds, and plantains are raised in gardens, and turmeric and chillies as occasional crops. Flowers of numberless kinds grow in profusion, and in the monsoon every hollow and wall sprouts with ferns and creepers.

The fauna is varied. Leopards are found wherever there is cover, and annually destroy large numbers of cattle. The tiger is less common. On the Ghāts bison (*gaur*) and *sāmbar* attract sportsmen, and the black bear is also found, while elephants are fairly numerous in the extensive forests of the Uppinangadi *tāluk*. Deer and monkeys do considerable damage to cultivation near the Ghāts. The jackal is ubiquitous. The handsome Malabar squirrel (*Sciurus indicus*) is common in the forests, and flying foxes have established several flourishing colonies. Among rarer animals are the flying squirrel, lemur, porcupine, and pangolin. Many species of snakes exist, and the python and the hamadryad (*Ophiophagus elaps*) grow to an immense size. Crocodiles and otters are found in the larger streams. There is good fishing in the rivers, mahseer being numerous; but dynamiting, poisoning, and netting by the natives have done much to spoil it.

The climate is characterized by excessive humidity, and is relaxing and debilitating to Europeans and people of sedentary habits. The annual temperature at Mangalore averages 81°. The heat is greatest in the inland parts of the District during the months of March, April, and May. Malarial fever is rife during the hot season and the breaks in the monsoon wherever there is thick jungle. From November to March a chilly land wind blows at night which, though it keeps the temperature low, is unhealthy and reputed especially dangerous to horses.

The annual rainfall averages 145 inches. It is smallest on the coast line, ranging from 127 inches at Hosdrug in the south to 141 inches at Coondapoor in the north. The farther inland one goes the greater is the amount, Kārkala close to the Ghāts having an average of 189 inches. In 1897 the enormous fall of 239 inches was recorded at this station. Of the total amount, more than 80 per cent is received during the four months from June to September in the south-west monsoon. The rains may be said never to fail, and the District has only once known famine. Floods, however, are rare, as the rivers have usually cut themselves very deep channels.

Little is known of the early history of South Kanara. Inscriptions show that it was included in the kingdom of the Pallavas of Kānchi, the modern Conjeeveram in Chingleput District, whose earliest capital appears to have been Vātāpi or Bādāmi, in the Bijāpur District of Bombay. Its next rulers seem to have been the early Kadamba kings of Banavāsi, the Banaousir of the Greek geographer Ptolemy (second century A.D.), in North Kanara District. About the sixth century they were overthrown by the early Chālukyas, who had established themselves at Bādāmi, the old Pallava capital. In the middle of the eighth century these were expelled by the later Kadamba king Mayūravarma, who is said to have introduced Brāhmans for the first time into the District. His successors seem to have ruled the country as feudatories of the Rāshtrakūtas of Mālkhed in the present Nizām's Dominions, and of the Western Chālukyas of Kalyāni in the same State. About the twelfth century the District was overrun by the Hoysala Ballālas of Dorasamudra, the modern Halebīd in Mysore. But there were frequent contests between them and the Yādavas of Deogiri, the modern Daulatābād in the Nizām's Dominions, until in the fourteenth century they were both overthrown by the Delhi Muhammadans, practically securing the independence of the local chiefs. In the first half of the fourteenth century the District passed under the Hindu kings of Vijayanagar. About this time Ibn Batūta, the Muhammadan traveller, passed through it, and has left an interesting, though somewhat exaggerated, description of what he saw. During the next century the Portuguese made their first settlements on the west coast, and Vasco da Gama himself landed in 1498 on one of the islands off Udipi. After the battle of Tālikotā in 1565, in which the last Vijayanagar king was defeated by the united Muhammadans of the Deccan, the local Jain chiefs achieved independence. But in the beginning of the next century almost all of them were subdued by the Lingāyat ruler, Venkatappa Naik, of Ikkeri, now a village in the Shimoga District of Mysore. During the next century and a half the Ikkeri chieftains, who had meanwhile removed their capital to Bednūr, the present Nagar in Mysore, continued masters of the country, though most of the old Jain and Brāhman chiefs seem to have retained local independence.

History.

British connexion with the District begins about 1737, when the factors at TELLICHERRY, taking advantage of a hostile move by the Bednūr Rājā, obtained commercial advantages, including a monopoly of all pepper and cardamoms in certain tracts. Haidar Alī, the Muhammadan usurper of the Mysore throne, after his conquest of Bednūr in 1763 took Mangalore and made it the base of his naval operations. The place was captured by the English in 1768, but, on Haidar's approach a few months later, was evacuated. On the out-

break of war with Haidar again in 1780, General Mathews, Commander-in-Chief of Bombay, landed opposite Coondapoor and took it. On his subsequent march north to Bednūr, he also took Hosangadi and the Haidargarh fort. Bednūr itself next fell, but the arrival of a large relieving force under Tipū, Haidar's son, forced Mathews to capitulate. Tipū then besieged Mangalore, which surrendered after a protracted struggle. During this war, Tipū, suspecting that the native Christians of the District were secretly aiding the English, deported large numbers of them to Mysore and forcibly converted them to Islām. During the final war with Tipū, which ended in his death at the fall of Seringapatam in 1799, the District suffered severely from the depredations of the Coorgs. By the Partition Treaty of the same year it fell to the British. To the country thus acquired was added in 1834, on the annexation of Coorg, the portion of that province which had been ceded to the Coorg Rājā in 1799. In 1862 the country north of the Coondapoor *tāluk* was transferred to the Bombay Presidency, leaving the District as it now stands to the administration of Madras.

The chief objects of archaeological interest in South Kanara are its Jain remains, which are among the most remarkable in the Presidency. The most noteworthy are found at Kārkala, Mūdbidri, and Yenūr, in a part of the District long ruled by Jain chiefs, of whom the most important were the Bhairarasa Wodeyars of Kārkala. Under this family, which migrated from above the Ghāts, building in stone is supposed to have been introduced into this part of the west coast. Fergusson states that the architecture of the Jain temples has no resemblance to the Dravidian or other South Indian styles, but finds its nearest affinity in Nepāl and Tibet. There is no doubt that it is largely a reproduction of the architectural forms in wood used in the country from early times. The remains are of three kinds. The first are the *bettas*, or walled enclosures containing colossal statues. There is one of these statues at Kārkala and another at Yenūr. The former is the larger, being 41 feet 5 inches high, and is also the more striking, as it stands on the top of a rocky hill overlooking a picturesque lake. They both have the traditional forms and lineaments of Buddha, but are named after Gomata Rāya, a forgotten and perhaps mythical Jain king. They are monolithic, and the method of their construction, whether they were hewn out of some boulder which stood on their sites, or whether they were sculptured elsewhere and removed to their present positions, is a mystery. A still larger statue, also said to be of Gomata Rāya, at Srāvana Belgola in Mysore is the only other example known. An inscription on the Kārkala statue states that it was erected in A.D. 1431. The second class of Jain remains are the *bastis* or temples. These are found all over the District, the most famous group being

at Mūdbidri, where there are eighteen of them. With plain but dignified exteriors, clearly showing their adaptation from styles suited to work in wood, and greatly resembling the architecture common in Nepāl in the reverse slope of the eaves above the veranda, nothing can exceed the richness and variety with which the interior is carved. The largest *basti* at Mūdbidri is three-storeyed, resembling somewhat the pagodas of the Farther East, and contains about 1,000 pillars, those of the interior being all carved in the most varied and exuberant manner. The last variety of Jain antiquities are the *stambhas* or pillars. Though not peculiar to Jain architecture, the most graceful examples are found in connexion with the temples of that faith. The finest is at Haleangadi near Kārkala. It is 50 feet from base to capital, the shaft being monolithic and 33 feet in length, and the whole gracefully proportioned and beautifully adorned. BĀRKŪR, once the Jain capital of the region destroyed by Lingāyat fanatics in the seventeenth century, probably excelled the rest of the District in the number and beauty of its buildings; but these are now a mere heap of ruins.

Serpent stones in groves and on platforms round the sacred fig-trees are numerous, bearing witness to the tree and serpent worship imposed by the influence of Jainism and Vaishnavism on the primitive demon and ancestor worship of the country. The Hindu temples are as a rule mean and unpretentious buildings, though many of them, such as that to Krishna at UDIPI and the shrines at SUBRAHMANYA, Kollūr, Sankaranārāyana, and Koteshwar, are of great antiquity and sanctity. Forts are numerous, especially along the sea-coast, but of little importance archaeologically. That at BEKAL is the largest, and was formerly a stronghold of the Bednūr kings.

Population.

South Kanara is divided into the five *tāluks* of Coondapoor, Kāsaragod, Mangalore, Udipi, and Uppinangadi, and includes also the Amindīvi Islands in the Indian Ocean. The head-quarters of the *tāluks* (except of Uppinangadi, which is at PUTTŪR) are at the places from which they are respectively named. The headman of the Amindīvis lives on the Amini island. Statistics of these areas, according to the Census of 1901, are shown in the table on the next page.

Much of South Kanara is hill and forest; and the density of the population is accordingly little above the average for the Presidency as a whole, fertile and free from famine though the District is. In the Uppinangadi *tāluk*, which lies close under the Ghāts, there are only 147 persons to the square mile. This is, however, on the main road to Mysore and Coorg, and the opportunities for trade thus afforded have caused the population here to increase faster than in the District as a whole.

The population of South Kanara in 1871 was 918,362; in 1881,

959,514; in 1891, 1,056,081; and in 1901, 1,134,713. It will be seen that the growth, though steady, is not remarkable. In the decade ending 1901 the rate of increase was about equal to the average for the Presidency, and during the last thirty years it has amounted to 24 per cent. There is considerable temporary emigration of labourers every year to the coffee estates of Coorg and Mysore, the total loss to the District in 1901 on the movement between it and these two areas being 14,000 and 40,000 persons respectively. On the other hand, South Kanara obtains very few immigrants from elsewhere. In 1901 less than 2 persons in every 100 found within it had been born outside. As in the case of Malabar, this is largely due to its geographical isolation, and to the fact that the ways and customs of its people and its agricultural tenures differ much from those of neighbouring areas. The people are fonder of living in their own separate homesteads than in streets, and the District consequently has a smaller urban population than any other except Kurnool and the Nīlgiris, and includes only two towns. These are the municipality of MANGALORE (population, 44,108), the District head-quarters, and the town of UDIPI (8,041). Both are growing places. There are few villages of the kind usual on the east coast, the people living in scattered habitations.

Tāluk.	Area in square miles.	Number of Towns.	Number of Villages.	Population.	Population per square mile.	Percentage of variation in population between 1891 and 1901.	Number of persons able to read and write.
Coondapoor	619	...	103	131,858	213	+ 0·2	7,748
Udipi	719	1	157	251,831	350	+ 3·9	15,496
Mangalore	679	1	243	334,294	492	+ 10·5	22,023
Amindivi Islands	3	...	4	3,608	1,203	− 3·1	38
Uppinangadi	1,239	...	182	181,842	147	+ 9·9	7,818
Kāsaragod	762	...	114	231,280	304	+ 10·0	13,067
District total	4,021	2	803	1,134,713	282	+ 7·4	66,190

Of the total population in 1901 Hindus numbered 914,163, or 81 per cent.; Musalmāns, 126,853, or 11 per cent.; Christians, 84,103, or 7 per cent.; and Jains, 9,582, or 1 per cent. Musalmāns are proportionately more numerous than in any Districts except Malabar, Madras City, and Kurnool; and most of them are Māppillas, who are described in the article on MALABAR. Excluding the exceptional cases of Madras City and the Nīlgiris, Christians form a higher percentage of the people than in any District except Tinnevelly. They have increased at the rate of 45 per cent. during the last twenty years. Jains are more numerous than in any other District of Madras.

South Kanara is a polyglot District. Tulu, Malayālam, Kanarese, and Konkanī are all largely spoken, being the vernaculars respectively

of 44, 19, 19, and 13 per cent. of the population. Tulu is the language of the centre of the District, and is used more than any other tongue in the Mangalore, Udipi, and Uppinangadi *tāluks*; but in Mangalore a fifth of the people speak Konkanī, a dialect of Marāthi, and in Udipi nearly a fourth speak Kanarese. In the Amindīvi Islands and in Kāsaragod, which latter adjoins Malabar, Malayālam is the prevailing vernacular. Most of those who are literate are literate in Kanarese. It is the official language of the District, and its rival, Tulu, has no written character, though it has occasionally been printed in Kanarese type.

The District contains proportionately more Brāhmans than any other in Madras, the caste numbering 110,000, or 12 per cent. of the Hindu population. The Hindus are made up of many elements, and the castes are in need of more careful study than they have yet received. They include 16,000 Telugus (9,000 of whom are Devānga or Sāle weavers); 82,000 members of Malayālam castes (most of whom are found in the Kāsaragod *tāluk*); 140,000 people of Marāthī or Konkanī-speaking communities; and 672,000 who talk Kanarese or Tulu. The three largest castes in the District are the Billavas (143,000), the Bants (118,000), and the Holeyas (118,000). The first two of these hardly occur elsewhere. They are respectively the toddy-drawers and the landholders of the community. The Holeyas are nearly all agricultural labourers by occupation.

Except the three Agencies in the north of the Presidency and South Arcot, South Kanara is more exclusively agricultural than any other District. As many as three-fourths of its people live by the land. Toddy-drawers are also proportionately more numerous than usual, though it must be remembered that many toddy-drawers by caste are agriculturists or field-labourers by occupation, while weavers and leather-workers form a smaller percentage of the people than is normally the case.

Out of the 84,103 Christians in the District in 1901, 83,779 were natives, more than 76,000 being Roman Catholics. Tradition avers that St. Thomas the Apostle visited the west coast in the first century. The present Roman Catholic community dates from the conquest of Mangalore by the Portuguese in 1526. Refugees from the Goanese territory driven out by Marāthā incursions, and settlers encouraged by the Bednūr kings, swelled the results of local conversion, so that by Tipū's time the native Christian community was estimated at 80,000 souls. But after the siege of Mangalore in 1784 Tipū deported great numbers of them, estimated at from 30,000 to 60,000, to Seringapatam, seized their property, and destroyed their churches. Many of them perished on the road and others were forcibly converted. On the fall of Seringapatam the survivors returned, and the community

was soon again in a prosperous condition. The jurisdiction of Goa continued until 1837, when part of the community placed themselves under the Carmelite Vicar Apostolic of Verapoli in Travancore. After further vicissitudes the Jesuits took the place of the Carmelites in 1878. Mangalore is now the seat of a Roman Catholic bishopric.

The only Protestant mission is the German Evangelical Mission of Basel, established at Mangalore in 1834. Its converts now number 5,913, mainly drawn from the poorest classes of the people, who find employment in the various industrial enterprises of the mission.

Agriculture.

The agricultural methods of South Kanara are conditioned by its climate and geological peculiarities. As already mentioned, the District is a laterite plateau on a granite bed, bounded by the Ghāts, and worn and furrowed into countless valleys by the action of the monsoons. Much of the level plateau above the valleys produces nothing but thatching-grass or stunted scrub; but the numerous hollows are the scene of rich and varied cultivation, and the slopes above the fields are well wooded save where denuded to supply the fuel markets of Mangalore and other large towns.

The soil is as a rule a laterite loam, which is especially rich in the lower stretches of the valleys, where the best rice land is found. Large stretches of level ground occur along the coast, where the soil is generally of a sandy character but contains much fertilizing alluvial matter. To the north of the Chandragiri river this land grows excellent rice crops and bears a very heavy rent. South of that stream the soil is thinner and suited only to the commoner kinds of rice; but tobacco and vegetables are grown in considerable quantities, especially by the Māppillas.

Every valley has one or more water channels running through its centre or down either side. The best rice-fields lie as a rule on a level with these channels, which feed them during the whole of the first-crop season by small openings in their embankments that can be shut or opened as needed. After the first crop of rice has been harvested, dams are thrown across these channels at intervals; and by this means the level of the water is maintained, and a second, and even a third, crop of rice can be grown by direct flow from the channel, water being let into the plots as required. Very often a permanent dam is maintained above the cultivation, to divert part of the water down the side channels. In the land immediately above these side channels a second crop of rice is grown by bailing either with *picottahs*, or, when the level admits, with hand-scoops (*kaidambe*) suspended from a cross-bar, or with a basket swung with ropes by two men. These lands are locally termed *majal*. Still higher up the slopes of the valley are other rice-fields, known as *bettu*, cut laboriously in terraces out of the hill-sides. These give only one crop of rice and, except where fed by some small jungle

stream, are entirely dependent on the rainfall; consequently their cultivation is somewhat precarious. The areca gardens are mostly situated in the sheltered nooks of the valleys in the more hilly parts of the District and in the recesses of the lower spurs and offshoots of the Ghāts, where the two essentials of shade and a perennial water-supply occur in combination. The finest coco-nut gardens are found in the sandy level stretches adjoining the coast, especially along the fringes of the numerous backwaters.

A considerable quantity of black gram, horse-gram, and green gram is grown on the level land near the coast as a second crop, and on *majal* lands elsewhere if sufficient moisture is available. Sugar-cane is grown here and there beside the backwaters. Pepper has never recovered from the measures taken by Tipū to suppress its cultivation. In the south of the Kāsaragod *tāluk*, *kumri*, or shifting cultivation, is still carried on in the jungles.

The District is essentially *ryotwāri*, such *ināms* as exist being merely assignments of land revenue. Statistics of the various *tāluks* for 1903-4 are appended, areas being in square miles:—

Tāluk.	Area shown in accounts.	Forests.	Cultivable waste.	Cultivated.
Coondapoor	619	241	35	122
Udipi	719	159	60	134
Mangalore	679	60	122	195
Uppinangadi	1,239	547	91	162
Kāsaragod	762	63	61	377
Total	4,018	1,070	369	990

More than a fourth of the District consists of forest, nearly one-half is hilly and rocky land not available for cultivation, and the area actually cropped is less than a fifth of the total. Rice is by far the most important staple, the area under it (counting twice over that cropped twice) being 760 square miles. The garden area, 82 square miles, consists almost entirely of coco-nut and areca-nut plantations. These three crops practically monopolize the cultivation.

For agricultural purposes the ryots divide the year into three seasons, to correspond with the times of the three rice crops. These are *Kārtika* or *Yenel* (May-October), *Suggi* (October-January), and *Kolake* (January-April). It is doubtful if any District in the Presidency shows such a round of orderly and careful cultivation, and the increased out-turn from any theoretical improvements that might be made would probably be more than counterbalanced by the enhanced cost of cultivation. The choice and rotation of crops, the properties of various soils, the selection of seed and of seed-beds, the number of ploughings, the amount of manure, the distribution of water, the

regulation of all these, and the countless other details of high farming, if based on no book knowledge, have been minutely adapted by centuries of experience and tradition to every variety of holding.

In the jungles which almost everywhere adjoin the cultivation the ryot finds an unfailing supply of manure for his fields, of timber for his agricultural implements, which he fashions at little expense to himself, and of fuel for domestic use. Consequently he has availed himself but little of the Land Improvements Loans Act. Under the name of *kumaki*, holders of *kadīm wargs*, or holdings formed before 1866, enjoy these privileges to the exclusion of others within 100 yards of the cultivation. No figures are available to show the extension of tillage. The absence of a survey, the connivence of the village and subordinate revenue officials, and the nature of the country have made encroachments particularly easy; and land has been formally applied for only where the prior right to it has been disputed, or to serve as a nucleus for future encroachment. Cultivation has increased steadily everywhere except immediately under the Ghāts, where the miseries and depopulation caused by the disturbances of the eighteenth century threw out of cultivation large tracts which have never recovered, owing to the prevalence of malaria and the demand for labour elsewhere.

The chief drawback to agriculture in South Kanara is the want of a good indigenous breed of cattle. All the best draught and plough cattle have to be imported from Mysore, and even where well tended they are apt to deteriorate. The ordinary village cattle, owing to exposure to the heavy rains, indiscriminate breeding, bad housing, and a régime of six months' plenty and six months' want, are miserably undersized and weakly. The climate is equally unfavourable to sheep and horses, the number of which is small and kept up only by importation. A fair is held annually at Subrahmanya, to which about 50,000 head of cattle are brought from Mysore to meet local requirements.

The heavy rainfall and the rapid nature of the rivers do not admit of large irrigation reservoirs or permanent dams being formed, and as a result there are no Government irrigation works in the District. But the ryots have themselves most skilfully utilized the springs and streams by countless channels, feeders, and temporary dams. Along the coast, cultivation is largely assisted by shallow ponds scooped at little expense out of the sandy soil, and farther inland reservoirs of a more substantial nature are sometimes constructed at the valley heads. Many areca gardens are so supplied.

Forests.

South Kanara is essentially a forest District. With the exception of the bare laterite plateaux and downs of the Kāsaragod and Mangalore *tāluks*, and the spots where the hills near the coast have been stripped of their growth for timber, fuel, and manure, the country is everywhere richly wooded. The whole

line of the Ghāts with their spurs and offshoots presents an almost unbroken stretch of virgin forest, which finds its richest and most luxuriant development in the recesses of the Uppinangadi *tāluk*, where the most important and largest Reserves are found. The total forest area in the District is 662 square miles, and 408 square miles of 'reserved' land are also controlled by the Forest department. In the early years of British administration the claims of Government to the forests and their prospective importance were alike overlooked; but the rights of the Crown began to be asserted from the year 1839 onwards, and during the last thirty years Reserves have been selected and a system of conservation introduced.

The destructive system of shifting cultivation, locally known as *kumri*, has been prohibited since 1860, except in a few small tracts where it is strictly regulated. Such regulation is a matter of the greatest importance to a District with an annual rainfall averaging over 140 inches, the seasonable distribution of which depends largely on the proper protection of its catchment area.

The most valuable timber trees are teak, poonspar (*Calophyllum elatum*), black-wood (*Dalbergia latifolia*), jack (*Artocarpus integrifolia*) and wild jack (*A. hirsuta*), *ventek* (*Lagerstroemia microcarpa*), *kirālbhog* (*Hopea parviflora*), *banapu* (*Terminalia tomentosa*), and *marva* (*T. paniculata*). But development must still be said to be in its infancy. In fact, the chief revenue is at present derived from items of minor produce, such as catechu, grazing fees, &c. The main obstacle is the want of good communications; but once this is overcome, whether by a system of light railways or otherwise, the South Kanara forests should be of the greatest value.

A fine clay excellently adapted for pottery is found in several localities, especially along the banks of the Netrāvati, which supplies material for the Mangalore tile-works mentioned below. Gold and garnets are known to occur in one or two places, but the mineral resources of the District are as yet practically unexplored. The ordinary laterite rock, which is easily cut and hardens on exposure, forms the common building material.

Trade and communications.

The only large manufactures in South Kanara are the results of European enterprise. Tile-making was introduced by the Basel Mission, and this body has now two factories at Mangalore and another at Malpe near Udipi. At Mangalore one other European firm and nine native merchants are engaged in the industry, and elsewhere in the District are two more native factories. The industry employs altogether about 1,000 hands. The Basel Mission has also a large weaving establishment at Mangalore, and some of its employés have started small concerns elsewhere; but otherwise the weaving of the

District is of the ordinary kind. The same may be said with reference to the work of the goldsmiths, blacksmiths, and other artisans. Four European and three native firms are engaged in coffee-curing. In 1903–4 coffee from above the Ghāts to the value of 41 lakhs was exported. Coir yarn is manufactured in considerable quantities in the Amindīvi Islands, where it forms a Government monopoly, and along the coast. On the coast, too, a considerable industry exists in fish-curing, which is done with duty-free salt in fourteen Government curing-yards. Most of the product is exported to Colombo, but large quantities are also sent inland. Sandal oil is distilled in the Udipi *tāluk* from sandal-wood brought down from Mysore.

The principal articles of export are coffee, tiles, coco-nut kernels (copra), rice, salted fish, spices, and wood. The tiles are exported to Bombay and to ports in the Presidency. The coffee is brought from Mysore and Coorg to be cured, and is exported chiefly to the United Kingdom and France. The coco-nut kernels go chiefly to Bombay, rice to Malabar and Goa, and salted fish to Colombo. Large quantities of areca-nuts are shipped to Bombay and Kāthiāwār. The wood exported is chiefly sandal brought from Mysore and Coorg. The chief imports are cotton piece-goods, grain, liquor, oil, copra, pulses, spices, sugar, salt, and salted fish, largely to meet local needs, but partly for re-export to Mysore and Coorg. The bulk of the trade is carried on at MANGALORE (the commerce of which is referred to in the separate article upon the place); and Malpe, Hangārkatta, and Gangoli are the most important of the outports. The most prominent by far of the mercantile castes are the Māppillas, who are followed by Telugu traders, such as the Balijās and the Chettis. Konkani Brāhmans, native Christians, and Rājāpuris also take a share. There are twenty weekly markets in the District under the control of the local boards.

The District had recently no railways: but the Azhikal-Mangalore extension of the Madras Railway, opened throughout in 1907, now affords communication with Malabar and the rest of the Presidency. Its construction is estimated to have cost 109 lakhs for a length of 78 miles. A line from Arsikere on the Southern Mahratta Railway to Mangalore has also been projected and surveyed.

The total length of metalled roads is 148 miles and of unmetalled roads 833 miles, all of which are maintained from Local funds. Avenues of trees have been planted along 467 miles. The main lines are the coast road from Kavoy to Shirūr; the roads leading to Mercāra through the Sampaji *ghāt* from Kāsaragod and Mangalore; and those from Mangalore through the Chārmādi *ghāt* to Mudugere *tāluk*, and through Kārkala and the Agumbe *ghāt* to the Koppa *tāluk* in Mysore. Lines running through the Kollūr, Hosangadi, Shirādi, and Bisale

ghāts also afford access to Mysore, and the main routes are fed by numerous cross-roads. The tidal reaches of the rivers and the numerous backwaters furnish a cheap means of internal communication along the coast. In the monsoon communication by sea is entirely closed; but during the fair season, from the middle of September to the middle of May, steamers of the Bombay Steam Navigation Company call twice weekly at Mangalore and other ports in the District. Mangalore is also a port of call for steamers of the British India Company and other lines. Large numbers of coasting craft carry on a brisk trade.

Owing to the abundant monsoons the District always produces more grain than is sufficient for its requirements. It is practically exempt from famine, and no relief has ever been needed except in the year 1812.

Administration.

For administrative purposes South Kanara is divided into three subdivisions. Coondapoor, comprising the Coondapoor and Udipi *tāluks*, is usually in charge of a Covenanted Civilian. Mangalore, corresponding to the *tāluk* of the same name (but including also the Amindīvi Islands), and Puttūr, comprising the Uppinangadi and Kāsaragod *tāluks*, are under Deputy-Collectors recruited in India. A *tahsīldār* and a stationary sub-magistrate are posted at the head-quarters of each *tāluk*, and deputy-*tahsīldārs* at Kārkala, Bantvāl, Beltangadi, and Hosdrug, besides a sub-magistrate for Mangalore town.

Civil justice is administered by a District Judge and a Subordinate Judge at Mangalore, and by District Munsifs at Mangalore, Kāsaragod, Udipi, Coondapoor, Puttūr, and Kārkala. The Court of Session hears the more important criminal cases, but serious crime is not more than usually common, and there are no professional criminal tribes in the District. Offences under the Abkāri, Salt, and Forest Acts are numerous; and civil disputes are frequently made the ground of criminal charges, especially in connexion with land and inheritance, the majority of the Hindu castes in the District being governed by the Aliya Santāna law of inheritance, under which a man's heirs are not his own but his sister's sons.

Little is known of the early revenue history of the District. Tradition gives one-sixth of the gross produce, estimated at first in unhusked and latterly in husked rice, as the share demanded by the government prior to the ascendancy of Vijayanagar. About 1336, in the time of Harihara, the first of the kings of that line, the land revenue system was revised. One-half of the gross produce was apportioned to the cultivator, one-quarter to the landlord, one-sixth to the government, and one-twelfth to the gods and to Brāhmans. This arrangement thinly disguised an addition of 50 per cent. to the land revenue; and the assumed share of the gods and Brāhmans, being collected by the

government, was entirely at its disposal. In 1618 the Ikkeri Rājās of Bednūr imposed an additional assessment of 50 per cent. on all the District except the Mangalore *hobli*, and at a later date imposed a tax on fruit trees. These additions were permanently added to the standard revenue. Other additions were made from time to time, amounting in 1762, when Haidar conquered Kanara, to a further 25 per cent. of the standard revenue, but still not sufficient to affect seriously the prosperity of the District. Haidar cancelled the deductions previously allowed on waste lands and imposed other additions, so that at his death the extras exceeded the standard revenue. The further exactions and oppressions of Tipū were such that much land went out of cultivation, collections showed deficiencies ranging from 10 to 60 per cent., and the District was so impoverished that little land had any saleable value.

Major (afterwards Sir Thomas) Munro, the first Collector of the District, setting aside all merely nominal imposts and assessments on waste lands, imposed on Kanara and Sonda (the present Districts of North and South Kanara) a new settlement in 1799-1800. Some slight reductions were made in the following year. It worked smoothly for some time; then difficulty in the collections and signs of deterioration owing to over-assessment induced the Board of Revenue to order a revision, based on the average collections from each estate since the country came under the British Government. This assessment, introduced in 1819-20, was till recently in force in South Kanara, with the exception of a portion of the Uppinangadi *tāluk* which was subsequently taken over from Coorg. Continued difficulty in realizing the demand, owing to low prices and riotous assemblages of the cultivators, who refused to pay their assessment, led to a Member of the Board of Revenue being deputed in 1831 to inquire into the state of the District. He reported that the disturbances were due to official intrigues, that the assessment was on the whole moderate, though low prices had caused some distress, and that where over-assessment existed it was due entirely to the unequal incidence of the settlement, aggravated by the frauds of the village accountants, who had complete control over the public records. In accordance with his views, some relief was granted in the settlement for 1833-4 to those estates which were over-assessed. The Board did not, however, regard these measures as satisfactory. Further correspondence confirmed the view that any attempt to base a redistribution of the assessment on the accounts then available was doomed to failure, owing to their fallacious nature. The Board therefore expressed the opinion that the only remedy was a settlement based on a correct survey. This proposal involved a consideration of the question whether any pledge had been given for the fixity of the settlement of 1819-20. After further correspondence

between the Collectors, the Board, and the Government, the question was dropped in 1851, the improvement in prices having meanwhile relieved the pressure of assessment on particular estates.

In 1880 the matter was again raised by the Government of India, in connexion with the general revision of settlements in the Presidency; and it was finally determined that the Government was in no way pledged to maintain the assessment unaltered, and that the survey and revision of settlement should be extended to Kanara in due course. A survey was begun in 1889 and settlement operations in October, 1894. A scheme was sanctioned for all the *tāluks* and has now been brought into operation. Under this the average assessment on 'dry' land is R. 0-9-7 per acre (maximum Rs. 2, minimum 2 annas); on 'wet' land Rs. 4-7-11 (maximum Rs. 10, including charge for second crop; minimum 12 annas); and on garden land Rs. 4-13-7 (maximum Rs. 8, minimum Rs. 2). The proposals anticipate an ultimate increase in the assessment of the District of Rs. 9,22,000, or 65 per cent., over the former revenue.

The revenue from land and the total revenue in recent years are given below, in thousands of rupees:—

	1880-1.	1890-1.	1900-1.	1903-4
Land revenue . .	13,38	14,69	15,26	17,05
Total revenue . .	17,90	21,63	25,41	27,76

Outside the municipality of Mangalore, local affairs are managed by the District board and the three *tāluk* boards of Coondapoor, Mangalore, and Puttur, the areas in charge of which correspond with the subdivisions of the same names. Their total expenditure in 1903-4 was Rs. 2,82,000, of which Rs. 1,57,000 was laid out on roads and buildings. The chief source of income is, as usual, the land cess. South Kanara contains none of the Unions which on the east coast control the affairs of many of the smaller towns.

The police are in charge of a District Superintendent, whose head-quarters are at Mangalore. The force numbers 10 inspectors and 558 constables, and there are 50 police stations. Village police do not exist.

There is a District jail at Mangalore, and 8 subsidiary jails at the head-quarters of the *tahsīldārs* and their deputies have accommodation for 85 males and 35 females.

At the Census of 1901 South Kanara stood eleventh among the Districts of the Presidency in the literacy of its population, 5·8 per cent. (11·1 males and 0·9 females) being able to read and write. Education is most advanced in the Mangalore *tāluk*, and most backward in the hilly inland *tāluk* of Uppinangadi. In 1880-1 the number

of pupils of both sexes under instruction in the District numbered 6,178; in 1890–1, 18,688; in 1900–1, 24,311; and in 1903–4, 27,684. On March 31, 1904, the number of educational institutions of all kinds was 658, of which 502 were classed as public and 156 as private. The public institutions included 474 primary, 23 secondary, and 3 special schools, and 2 colleges. The girls in all of these numbered 4,107, besides 1,566 under instruction in elementary private schools. Six of the public institutions were managed by the Educational department, 85 by local boards, and 7 by the Mangalore municipality, while 278 were aided from public funds, and 126 were unaided but conformed to the rules of the department. Of the male population of school-going age in 1903–4, 21 per cent. were in the primary stage of instruction, and of the female population of the same age 4 per cent. Among Musalmāns, the corresponding percentages were 30 and 6 respectively. Education, especially that of girls, is most advanced in the Christian community. Two schools provide for the education of Panchamas or depressed castes, and are attended by 37 pupils. The two Arts colleges are the St. Aloysius College, a first-grade aided institution, and the second-grade Government College, both at Mangalore. The former was established in 1880 by the Jesuit Fathers. The total expenditure on education in 1903–4 was Rs. 2,22,000, of which Rs. 77,000, or 35 per cent., was derived from fees; and 53 per cent. of the total was devoted to primary education.

The District possesses 8 hospitals and 11 dispensaries, with accommodation for 75 in-patients. In 1903 the number of cases treated was 135,000, including 1,600 in-patients, and 3,200 operations were performed. The expenditure was Rs. 38,000, which was mostly met from Local and municipal funds.

In 1903–4 the number of persons successfully vaccinated was 28,000, or 23 per 1,000 of the population. Vaccination is compulsory only in the Mangalore municipality.

[J. Sturrock and H. A. Stuart, *District Manual* (1894).]

Kanārak.—Temple in Purī District, Bengal. *See* KONĀRAK.

Kānaud Town.—Head-quarters of the Mohindargarh *nizāmat* and *tahsīl*, Patiāla State, Punjab, situated in 28° 16′ N. and 76° 13′ E., 24 miles south of Dāri. Population (1901), 9,984. Kānaud was founded by Malik Mahdūd Khān, a servant of Bābar, and first peopled, it is said, by Brāhmans of the Kanaudia *sāsan* or group, from whom it takes its name. It remained a *pargana* of the *sarkār* of Nārnaul under the Mughal emperors, and about the beginning of the eighteenth century was conquered by the Thākur of Jaipur, who was in turn expelled by Nawāb Najaf Kuli Khān, the great minister of Shāh Alam. On his death his widow maintained her independence in the fortress, but in 1792 Sindhia's general, De Boigne, sent a force against it under

Perron. Ismail Beg persuaded its mistress to resist, and marched to her relief; but she was killed in the battle which ensued under the walls of Kānaud, and Ismail Beg surrendered to Perron. Kānaud then became the principal stronghold of Appa Khande Rao, Sindhia's feudatory, who held the Rewāri territory, and eventually became a possession of the British, by whom it was granted to the Nawāb of Jhajjar. By the *sanad* of January 4, 1861, the British Government granted *parganas* Kānaud and Kuddhūāna to the Mahārājā of Patiāla, with all rights pertaining thereto, in lieu of 19·4 lakhs. The town has an Anglo-vernacular middle school, a dispensary, and a police station. The fort of Kānaud, known as Mohindargarh, contains the head-quarters offices of the Mohindargarh *nizāmat* and *tahsīl*.

Kanauj Tahsīl (*Kannauj*).—South-eastern *tahsīl* of Farrukhābād District, United Provinces, conterminous with the *pargana* of the same name, lying along the Ganges, between 26° 56′ and 27° 12′ N. and 79° 43′ and 80° 1′ E., with an area of 181 square miles. Population decreased from 117,229 in 1891 to 114,215 in 1901. There are 206 villages and one town, KANAUJ (population, 18,552). The demand for land revenue in 1903 4 was Rs. 1,95,000, and for cesses Rs. 31,000. The density of population, 631 persons per square mile, is above the District average. The *tahsīl* consists of two parts: the uplands or *bāngar*, and the lowlands near the Ganges, or *kachohā*, the former covering the larger area. The Kālī Nadī (East) crosses the *tahsīl* and joins the Ganges. In 1903–4 the area under cultivation was 124 square miles, of which 43 were irrigated. Irrigation is supplied almost entirely from wells, and the tract is liable to suffer in dry seasons. This was the only *tahsīl* in the District which lost in population between 1891 and 1901.

Kanauj Town (*Kannauj*).—Ancient city in Farrukhābād District, United Provinces, situated in 27° 3′ N. and 79° 56′ E., 2 miles from the grand trunk road and the Cawnpore-Achhnerā Railway, and close to the Kālī Nadī (East). The Ganges once flowed below its walls, but is now some miles away. Population (1901), 18,552. The town finds no mention in the Mahābhārata, but the legend of its foundation is given in the Rāmāyana. Kusīnābha, the founder, had a hundred daughters, all but the youngest of whom scorned the hermit, Vāyu. In revenge he cursed them, and their backs became humped, whence the city was called Kānya-kubja, or 'the crooked maiden.' Early in the Christian era Ptolemy refers to Kanauj as *Kanogiza*. The town was included in the Gupta dominions in the fifth century; and when the Gupta empire fell to pieces it became the capital of the Maukharīs, one of the petty dynasties which arose in its place. In the sixth century it suffered from war with the White Huns and their ally, the king of Mālwā; but early in the seventh century it was included in

the great empire of Harshavardhana in Northern India. The Chinese pilgrim, Hiuen Tsiang, who visited this monarch and travelled with him from Allahābād to Kanauj, describes the magnificence of his court. Harshavardhana's death was the signal for anarchy, and the detailed history of the following years is unknown. In the latter half of the ninth century a dynasty of Raghuvansi kings reigned from Kanauj, which was also called Mahodayā, over an extensive dominion. One of these kings was defeated in 917 by the king of Gujarāt, but restored by the Chandel king of Mahobā. In 1019 Mahmūd of Ghazni plundered Kanauj, which now came into the power of the Rāthors, the most celebrated of whom was Gobind Chand (1115–55). Nearly 200 years later, in 1194, Muhammad Ghorī defeated Jai Chand, the last of the Rāthor kings, and the great kingdom of Kanauj came to an end. Under the Muhammadans Kanauj became the seat of a governor, but lost its old importance. In the fifteenth century it was included for some years in the Sharki kingdom of Jaunpur; and when Mahmūd, son of Fīroz Tughlak, lost his hold on Delhi, he resided here for a time. It was close to Kanauj, though across the Ganges in Hardoī District, that Humāyūn was defeated by Sher Shāh. Under Akbar, when order had once been restored, Kanauj entered on a long period of peace, and it is recorded in the *Ain-i-Akbarī* as the head-quarters of a *sarkār*. During the eighteenth century it belonged sometimes to the Nawābs of Farrukhābād, again to the Nawābs of Oudh, and at times to the Marāthās. The town or kingdom of Kanauj has given its name to an important division of Brāhmans, and to many subdivisions of lower castes. Of the Hindu buildings which must have graced the place, nothing remains intact. The fine Jāma Masjid, built in 1406 by Ibrāhīm Shāh of Jaunpur, was constructed from Hindu temples, and the site is still known to Hindus as Sītā kī rasoi, or 'Sītā's kitchen.' There are many tombs and shrines in the neighbourhood, the most notable being those of Makhdūm Jahāniyā south-east of the town, and of Makhdūm Akhai Jamshīd 3 miles away, both dating from the fifteenth century. The most conspicuous buildings are, however, the tombs of Bālā Pīr and his son, Shaikh Mahdī, religious teachers who flourished under Shah Jahān and Aurangzeb. The neighbourhood for miles along the river is studded with ruins, which have not been explored. The town lies on the edge of the old high bank of the Ganges, and, but for the high mounds and buildings described above, is not distinguishable from many places of similar size. The houses are fairly well built but small, and the most conspicuous modern building is a fine *sarai* recently completed. The dispensary, *tahsīlī*, and *munsifī* are at Sarai Mīrān, 2 miles south of Kanauj. The town is administered under Act XX of 1856, with an income of about Rs. 4,000. It is famous for its scent distilleries, where rose-water, otto

of roses, and other perfumes are produced, which have a great reputation. Calico-printing is also carried on, but is not so important an industry here as in Farrukhābād city. There was formerly a small manufacture of country paper, and a cotton gin has been worked at intervals in the last few years. The town school has 113 pupils and two primary schools 96. There is also a flourishing aided school, housed in a fine building.

Kanaung.—Northern township of Henzada District, Lower Burma, lying between 17° 54′ and 18° 19′ N. and 94° 48′ and 95° 31′ E., with an area of 615 square miles. The population increased from 79,499 in 1891 to 92,365 in 1901, the density being 150 persons per square mile. The township extends from the Arakan Yoma in the west to the Irrawaddy, widening as it approaches the river. About one-third is uncultivable, being covered by the spurs of the Yoma. The lands in the western part are protected by embankments and fertile. The population consists almost entirely of Burmans, Karens, and Chins, in the proportions of 92, 6, and 1½ per 100. There are 428 villages and one town, MYANAUNG (population, 6,351). Kanaung (891) is the head-quarters. The area cultivated in 1903–4 was 149 square miles, paying Rs. 2,25,000 land revenue.

Kanāwār.—The upper or north-eastern subdivision of Bashahr State, Punjab, consisting in great part of the valley of the Upper Sutlej. It lies between 31° 7′ and 32° 5′ N. and 77° 48′ and 79° 4′ E. It is bounded on the north by Spiti; on the east by Chinese territory; on the south by Bashahr proper and Tehrī; and on the west by the Kochi subdivision of Bashahr. The estimated area is 1,730 square miles, and the population in 1901 was 17,741.

Kanāwār is a rugged country, 50 miles in length by 40 in breadth, through whose ridges winds the deeply cleft valley of the Sutlej. The precipitous banks of the main river afford little room for cultivation, but the valleys of its tributaries are assiduously tilled by the mountaineers. Until about forty-five years ago, grapes yielded an abundant vintage, being manufactured into raisin wine and strong spirit. Vine disease subsequently reduced the vintage to a quarter of what it once was, but has recently subsided. The population consists of a mixed Tibetan and Hindu race, the Mongolian element preponderating in the north, while the southern region is inhabited by persons of Aryan type. Alone among the neighbouring hill tribes, the Kanāwāris successfully resisted the Gurkha invasion, and so completely baffled the enemy by breaking down bridges, that the Gurkhas entered into a convention by which, in return for a tribute of Rs. 11,250, they agreed to leave the valley unmolested. Polyandry exists in its fullest form throughout Kanāwār. Religion, broadly speaking, follows race. The northern villages profess Buddhism of the Tibetan model; in the south Hin-

duism prevails, while the middle region shades off gradually from one faith into the other. The language varies, like the religion, from Tibetan in the north to neo-Sanskritic dialects on the Indian side. The chief villages in the valley are Sangnam and Kanum.

Kanbalu Subdivision.—Subdivision of Shwebo District, Upper Burma, containing the KANBALU and KYUNHLA townships.

Kanbalu Township.—North-eastern township of Shwebo District, Upper Burma, lying between the Mu and the Irrawaddy rivers, between 22° 51′ and 23° 44′ N. and 95° 22′ and 96° 1′ E., with an area of 1,636 square miles. The country is dry and flat, and only the south-western corner is at all thickly populated. The population was 31,872 in 1891, and 44,783 in 1901, distributed in 259 villages, Kanbalu (population, 1,003), on the railway, being the head-quarters. The area cultivated in 1903–4 was 132 square miles, and the land revenue and *thathameda* amounted to Rs. 64,300.

Kānchenjanga.—Mountain in Sikkim State, Bengal. *See* KINCHINJUNGA.

Kānchīvaram.—*Tāluk* and town in Chingleput District, Madras. *See* CONJEEVERAM.

Kānchrāpāra.—Village in the Barrackpore subdivision, District of the Twenty-four Parganas, Bengal, situated in 22° 57′ N. and 88° 26′ E. Population (1901), 1,545. Kānchrāpāra is an important station on the Eastern Bengal State Railway, and the railway workshops are situated here. It lies within the HĀLISAHAR municipality.

Kandahār Province.—Province of Afghānistān, bounded on the north by the Taimani country in the Herāt province, and by the Hazārajāt and Ghazni districts of Kābul: on the east and south by Baluchistān; and on the west by Farrah. Within the administrative charge of the *naib-ul-hukumā* (governor) of Kandahār are comprised the division of Chakansūr, and the minor divisions or districts of Kalāt-i-Ghilzai, Mākur, Pusht-i-Rūd, Zamindawar, and Girishk.

The province is divided into two well-marked portions, differing essentially from each other in character, by a line drawn from Kandahār to Farrah. North of this line, and also to the north east, the country is hilly, and gradually becomes more mountainous northwards. The general elevation of portions of Pusht-i-Rūd and Zamindawar is about 4,000 feet, while in the Bhagni tract of Pusht-i-Rūd there are mountains of 10,000 feet in altitude. In the north-east Kalāt-i-Ghilzai is 5,543 feet above sea-level, and in its neighbourhood are peaks of not less than 9,500 feet. South of the dividing line above mentioned, the elevation is at first between 2,000 and 2,500 feet, but it rapidly decreases. The country watered by the lower courses of the Harūt, Farrah, and Helmand is open, forming the only plains of Afghānistān proper. To the south of Kandahār city is the desert of Registān. in

the south-west lies the great Afghān-Seistan desert. The province is drained by the Kadenai, Tarnak, Arghastān, Arghandāb, Helmand, Harūt, and Farrah Rūd rivers. Rising in the mountains north of the province, the Helmand with its tributaries eventually loses itself in the Seistān Hāmūn.

The name of the province seems to connect it with the Indian people known to the Greeks as *Gandarii*, but the present inhabitants are almost entirely Durrānis. The towns contain a considerable number of Pārsiwāns (people of Persian descent), while in Kandahār city there are about 5,000 Hindus. No reliable estimate of the total population can be given.

The climate varies considerably; that of the deserts is excessively trying, but with this exception it is on the whole good. In the mountainous regions the winters are severe, but elsewhere the cold is not great.

Kandahār City.—Capital of the Kandahār province of Afghānistān, situated in 31° 27 N. and 65° 43′ E., 354 miles from Herāt by the shortest route, 313 from Kābul via Maidān, and about 62 miles from the British border at New Chaman; 3,462 feet above the sea. The city is situated between the Tarnak and Arghandāb rivers on a level plain, intersected by numerous canals, and highly cultivated and well populated to the south and west, but barren to the north, north-west, and north-east. It forms an irregular oblong, longest from north to south, with a circuit of over 3 miles. It is surrounded by a ditch 24 feet wide and 10 feet deep, and by a wall 27 feet in height. There are six gates, two each on the east and west, and one on the north and on the south. The four principal streets are about 40 yards wide, and are named after the gates to which they lead from the Chārsu, their point of intersection. Smaller and narrower streets branch from the main arteries towards the city walls. Kandahār is divided into four quarters, the various tribes which constitute the inhabitants occupying, to a great extent, separate portions. The different classes of merchants and shopkeepers also occupy separate streets, or portions of streets, in the various quarters. The houses are generally built of sun-dried bricks, and are flat-roofed, some with upper storeys. Those of the rich are enclosed by high walls, and many contain three or four courts, with gardens and fountains. The citadel is situated at the north of the city. South of it is an open space called the Topkhāna; west is another open space in which is situated the tomb of Ahmad Shāh Durrāni. This structure overtops all the surrounding buildings, and its lofty dome attracts the attention of the traveller approaching the city from a distance. There are more than 180 Sunni mosques in the city, of which the Khirka Mubārak, a place of sanctuary (*bast*), is the most celebrated. Notwithstanding the large number of Shiah inhabitants, there is no

Shiah mosque. A commodious caravanserai exists outside the eastern gate for the storage of wool and other goods going to India.

The total population of Kandahār city is estimated at 31,000, among whom Pārsiwāns predominate. There are about 1,600 shops, and a *ganj* where a large cattle, sheep, and grain market is held daily. The usual water-supply is derived, by numerous canals, from the Arghandāb, but an ample supply is also available from wells. The climate of Kandahār is not salubrious, probably owing to the want of sanitation and to the large graveyards on one side and the marshes on the other. The rainfall is small, and occurs during the winter and early spring. In the summer months the heat is intense. The temperature varies greatly between sunrise and mid-day, sometimes by as much as 40° or 50°.

Kandahār is famous for its fruits, which are as plentiful as they are good; apricots, peaches, pomegranates, grapes, figs, and melons are all excellent of their kind and, fresh or dry, are largely exported. A considerable amount of tobacco is also grown for export to India.

Kandahār is one of the principal trade centres in Afghānistān. There are no manufactures or industries of any importance peculiar to the city; but the long lines of bazars display goods from Great Britain, India, Russia, Persia, and Turkistān, embracing a trade area as large probably as that of any city in Asia. The customs and towns dues together amount to a sum equal to the land revenue of the entire province. The Hindus are the most numerous and the wealthiest merchants in Kandahār, carrying on a profitable trade with Bombay and Sind. They import British manufactures, e.g. silks, calicoes, muslins, chintzes, broadcloth, and hardware; and Indian produce, such as indigo, spices, and sugar. They export asafoetida, madder, wool, dried fruits, tobacco, silk, rosaries, &c. In 1903-4 the exports to India from Kandahār were valued at nearly 35 lakhs, and the imports at 33 lakhs.

From early times Kandahār must have been a town of much importance in Asia, as being the central point at which the roads from Herāt, Seistān, Ghor, Kābul, and India unite. The position did not escape the notice of Alexander the Great, and Kandahār (*Alexandria Arachoton*) is probably one of the cities that he founded or rebuilt. After being a portion of the Seleucid, Parthian, Sassanid, and Arab empires, Kandahār, on the break-up of the Khalifat, fell successively to the Persian Saffārids and Sāmānids, to the house of Ghazni, the Seljūks, the Ghorids, and the Shāhs of Khwārizm, and in 1222 it was captured by the Mongols under Chingiz Khān. From his descendants it passed for a time to the Kart dynasty of Herāt, an offshoot of the Ghorids, and in 1389 it was taken by Tīmūr Lang. Between 1468 and 1512 it was under local chiefs, but in the latter year it was recovered for

the Tīmūrids by Bābar, the founder of the Mughal empire. After his death Kandahār was a constant subject of contention between the Mughals and the Persian Safavids; and after being several times captured and recaptured by one or the other, it finally passed out of Mughal possession in 1648, the subsequent efforts of Shāh Jahān's sons, Aurangzeb and Dārā Shikoh, to recover it proving fruitless. In 1708 the Ghilzais of Kandahār threw off the Persian yoke, and a few years later defeated the Safavids in Persia itself. Persian rule was restored for a short time by Nādir Shāh, who destroyed the city in 1738 and built a new one. The old city is now known as Shahr-i-Kohna, and its ruins lie at the base of a bare rocky hill 3 miles to the west of the present town. Nādir Shāh's foundation was in turn destroyed by his Afghān successor, Ahmad Shāh, who founded the existing city in 1747. In 1834 Shāh Shujā, the dispossessed (Sadozai) king of Afghānistān, attempted to re-establish himself in Kandahār, but he was driven off by his Bārakzai rival, Dost Muhammad, who, after his victory, took the title of Amīr.

This was the last unaided attempt of the Sadozais to retake Kandahār. The next time Shāh Shujā appeared on the field it was with the support of the British Government. The Army of the Indus occupied Kandahār in April, 1839, and Shāh Shujā was crowned there in May. While the restored king with the main British army marched on Kābul, a force was left under General Nott to hold Kandahār. In 1842, after the revolt at Kābul and the massacre of Burnes and Macnaghten, an attack was made on the city by large bodies of Afghāns under Safdar Jang Sadozai, but it was beaten off with heavy loss, and a fresh attempt soon after was equally unsuccessful. In August, 1842, Nott marched to Kābul, and Safdar Jang then took possession of Kandahār, only to be driven out four months afterwards by Kohan Dil Khān, who had come from Persia. On the death of the latter in 1855 his son, Muhammad Sādik, held the city for a short time until Dost Muhammad took possession in November of the same year. Dost Muhammad appointed his son, Ghulām Haidar Khān, governor, and on his death in 1858 Sher Alī Khān succeeded him. On the latter becoming Amīr, he appointed his full brother, Muhammad Amīn Khān, to be governor. This chief rebelled and was killed in battle in 1865. Kandahār again fell into Sher Alī's hands; passed from his grasp to that of his half-brother and rival, Azīm Khān, in 1867; and again fell into the power of Sher Alī, through his son, Yakūb Khān, in 1868.

During the last Afghān War Kandahār was occupied by British troops in January, 1879; and in May, 1880, Sardār Sher Alī Khān was installed as Walī of the Kandahār province, which was to be independent of Kābul. In July, Sardār Muhammad Ayūb Khān, a younger

brother of Yakūb Khān, advancing from Herāt, inflicted a crushing defeat on a brigade of British troops at Maiwand and invested Kandahār. A relieving force under General Roberts left Kābul on August 8, arrived at Kandahār on the 31st, and on September 1 totally defeated Ayūb, whose camp, artillery, and baggage were captured, the Sardār escaping with a handful of followers. The victory immediately quieted the country, and the last of the British forces evacuated Southern Afghānistān in April, 1881. Sher Alī Khān had found himself too weak to maintain the position conferred on him, and had retired, at his own request, to India, where he ended his days as a British pensioner. Within three months of the British withdrawal, Ayūb Khān, who had been maintaining himself with spirit at Herāt, again took the field, and, after defeating Abdur Rahmān's troops, occupied Kandahār. He was, however, utterly defeated by the Amīr in September, 1881, and fled towards Herāt; but that city had, meanwhile, been occupied by one of the Amīr's lieutenants, and Ayūb Khān had to seek refuge in Persia. He came to India in 1888, and has since resided there.

Kandahār.—Western *tāluk* of Nānder District, Hyderābād State, with an area of 680 square miles. The population in 1901, including *jāgīrs*, was 97,728, compared with 128,525 in 1891, the decrease being due to the famine of 1900. Kandahār contained till recently one town, MUKKHER (population, 6,148), the head-quarters; and 190 villages, of which 37 are *jāgīr*. The land revenue in 1901 was 2·5 lakhs. *Regar* forms its predominant soil. In 1905 the *tāluk* was enlarged by the addition of some villages from Osmānnagar.

Kandh.—Tribe in the Central Provinces and Madras. *See* KHOND.

Kandhkot.—*Tāluka* of the Upper Sind Frontier District, Sind, Bombay, lying between 27° 59′ and 28° 27′ N. and 68° 57′ and 69° 22′ E., with an area of 543 square miles. The population in 1901 was 48,723, compared with 30,369 in 1891. The density, 90 persons per square mile, approximates to the District average. The *tāluka* contains 82 villages, of which Kandhkot is the head-quarters. The land revenue and cesses in 1903–4 amounted to nearly 1·9 lakhs. The *tāluka* depends for irrigation upon the Begāri, Unhar Wah, and Desert Canals, the canals from the Kashmor Band, and upon river floods.

Kāndhla.—Town in the Budhāna *tahsīl* of Muzaffarnagar District, United Provinces, situated in 29° 19′ N. and 77° 16′ E., near the Eastern Jumna Canal, 29 miles south-west of Muzaffarnagar town. Population (1902), 11,563. It is situated on low ground and the neighbourhood is swampy. The more important streets are metalled and drained. Kāndhla was constituted a municipality in 1872. The income and expenditure during the ten years ending 1901 averaged

Rs. 6,700. In 1903–4 the income was Rs. 11,000, chiefly derived from octroi (Rs. 6,600); and the expenditure was Rs. 11,000. There is a considerable local trade in grain, cotton, and cloth, which is manufactured here. The *tahsīlī* school had 130 pupils in 1904.

Kandhmāls.—Subdivision in Angul District, Bengal. *See* KHONDMĀLS.

Kāndi Subdivision.—South-western subdivision of Murshidābād District, Bengal, lying between 23° 43′ and 24° 12′ N. and 87° 50′ and 88° 14′ E., with an area of 512 square miles. The subdivision, which is watered by the Bhāgīrathi and Dwārka rivers, consists for the most part of undulating country, but near those rivers the land is alluvial and low-lying. The population in 1901 was 334,053, compared with 297,122 in 1891, the density being 652 persons per square mile. It contains one town, KĀNDI (population, 12,037), its head-quarters; and 883 villages.

Kāndi Town.—Head-quarters of the subdivision of the same name in Murshidābād District, Bengal, situated in 23° 58′ N. and 88° 3′ E., near the Mor river. Population (1901), 12,037. Kāndi owes much of its importance to the fact that it is the residence of the Rājās of Paikpāra, a wealthy and devout Hindu family. The founder of this family was Gangā Gobind Singh, a banian of Warren Hastings, who was born at Kāndi, and retired thither in his old age with an immense fortune, which he devoted to the erection of shrines and images of Krishna. His name has acquired a traditional celebrity for the most magnificent *sráddha* or funeral obsequies ever performed in Bengal, costing 20 lakhs, in honour of his mother. Kāndi was constituted a municipality in 1869. The income and expenditure during the decade ending 1901–2 averaged Rs. 7,000. In 1903–4 the income was Rs. 9,000, mainly from a tax on persons; and the expenditure was Rs. 8,000. The town contains the usual public offices, a sub-jail with accommodation for 24 prisoners, and a dispensary with 24 beds. The latter is maintained from the proceeds of an endowment fund, now amounting to 1·59 lakhs, left by the late Kumār Giris Chandra Sinha of Paikpāra, and is the best-equipped hospital in the District.

Kāndi.—Village in the Kalabgūr *tāluk* of Medak District, Hyderābād State, situated in 17° 35′ N. and 78° 6′ E., 5 miles south-east of Sangareddipet. Population (1901), 1,573. Upon the open plain close by stand two stones with Telugu or old Kanarese inscriptions, surmounted by the sun and moon.

Kandiāro Tāluka.—*Tāluka* of Hyderābād District, Sind, Bombay, lying between 26° 55′ and 27° 14′ N. and 68° 2′ and 68° 30′ E., with an area of 320 square miles. The population in 1901 was 62,937, compared with 55,733 in 1891. The density, 197 persons per square mile, is, after Hyderābād *tāluka*, the highest in the

District. The number of villages is 69, of which Kandiāro is the head-quarters. Land revenue and cesses in 1903–4 amounted to more than 1½ lakhs. The surface of the *tāluka* has the appearance of two large land waves with three depressions; and throughout its length on the river bank it is protected by a belt of forests. About two-thirds of the total is irrigated by canals, aided by wells. The chief crops are wheat, *jowār*, and gram.

Kandiāro Village.—Head-quarters of the *tāluka* of the same name in Hyderābād District, Sind, Bombay, situated in 27° 3′ N. and 68° 17′ E., on the Nasrat canal. Population (1901), 3,916. The principal occupation of the inhabitants is agriculture, but the Hindus are engaged in trade, which is mainly in grain and cloth. The village is said to have been built during the reign of Jahāngīr. Before it was founded another was in existence close by, called Patoipur, which was abandoned owing to an unusual rise of the inundation waters. The site of the present village was then chosen as being more elevated; and having at the time a large number of *kandi* trees growing upon it, the place took, it is supposed, from this circumstance the name of Kandiāro. Kandiāro has a technical school supported by the local board with an average daily attendance of 80 students, 6 other schools, of which 2 are for girls, and a dispensary.

Kandukūr Subdivision.—Subdivision of Nellore District, Madras, consisting of the *tāluks* of KANDUKŪR and KANAGIRI and the *zamīndāri tahsīls* of DARSI and PODILI.

Kandukūr Tāluk.—Coast *tāluk* of Nellore District, Madras, lying between 14° 58′ and 15° 30′ N. and 79° 38′ and 80° 5′ E., with an area of 787 square miles. The population in 1901 was 151,417, compared with 148,475 in 1891. It contains one town, KANDUKŪR (population, 9,569), the head-quarters; and 161 villages. The demand on account of land revenue and cesses in 1903–4 amounted to Rs. 3,58,000. The *tāluk* may before long be well supplied with irrigation, as it will be commanded by the great Tungabhadra-Penner and Kistna projects. The Manneru with its affluent, the Upputeru, the Paleru, the Mūsi, and the Yelikeru are the chief rivers. The Manneru feeds the Karedu tank, but the others are at present undeveloped as sources of irrigation.

Kandukūr Town.—Head-quarters of the *tāluk* of the same name in Nellore District, Madras, situated in 15° 13′ N. and 79° 54′ E., about 9 miles west of Singarāyakonda railway station and 13 miles from the sea. Population (1901), 9,569, mainly agriculturists. Two ancient temples here are dedicated to Vishnu and Siva.

Kaner.—Petty State in KĀTHIĀWĀR, Bombay.

Kanethi.—Petty State feudatory to the Bashahr State, Punjab, lying in two portions between 31° 9′ and 31° 18′ N. and 77° 32′ and

77° 40′ E. The area is 19 square miles, the population (1901) 2,575, and the revenue Rs. 4,000, about half of which is derived from forests. The present Thākur is Amog Chand, a Hindu Rājput, related to the Rānā of Kumhārsain. His territory is bounded by Kumhārsain, Bashahr, and the Kot Khai *pargana* of Simla District. The State has suffered much from misgovernment, and it has been necessary to take it under direct management. The Thākur, who is a minor, is being educated at the Aitchison College; and during his minority the administration is conducted by an official deputed by Government, who exercises full powers, except that sentences of death require the confirmation of the Superintendent, Hill States, Simla. The State pays a tribute of Rs. 900 to Bashahr.

Kāngra District.—North-easternmost District of the Jullundur Division, Punjab, lying between 31° 21′ and 32° 59′ N. and 75° 37′ and 78° 42′ E., with an estimated area of 9,978 square miles. It is bounded on the north-west by Chamba State; on the north by Kashmir territory; on the east by Tibet; on the south-east by Bashahr State; on the south by the Kotgarh villages of Simla District, and by the States of Kumhārsain, Sangri, Suket, Mandī, and Bilāspur; on the south-west by the District of Hoshiārpur; and on the west by Gurdāspur. It stretches eastwards from the plains of the Bāri and Jullundur Doābs across the Himālayan ranges to the borders of Tibet, and comprises two distinct tracts which lie on either side of the Outer Himālayas and present very diverse natural features. Of these two tracts the western block, which constitutes Kāngra proper, is described in this article. This portion, which lies south of the Dhaola Dhār range of the Outer Himālayas, consists of an irregular triangle, whose base lies upon the Hoshiārpur border, while the Native States of Chamba and Mandī constrict its upper portion to a narrow neck, known as Bangāhal, at one point less than 10 miles in width. Beyond this, the eastern block expands once more like an hour-glass, and embraces the Kulū subdivision, which comprises the *tahsīls* of KULŪ and SARĀJ and the mid-Himālayan cantons of LĀHUL and SPITI, each of which merits separate description.

Physical aspects.

Of the total estimated area of 9,978 square miles, 2,939 are in Kāngra proper. This is the more important part of the District as regards population and cultivation, and comprises two wide and valleys. The Kāngra valley lies between the Dhaola Dhār and the long irregular mass of lower hills which run, almost parallel to the Dhaola Dhār, from north-west to south-south-east. The second valley runs between these hills and the Sola Singhi range, and thus parallel to the Kāngra valley. On the north-west the District includes the outlying spurs which form the northern continuation of the Sola Singhi, running down to the banks of the Beās and Chakki, and it also

embraces the western slopes of that range to the south. The Kāngra valley is famous for its beauty, the charm lying not so much in the rich cultivation and perpetual verdure of the valley itself as in the constant yet ever-changing view of the Dhaola Dhār, whose snowy peaks rise sheer above the valley, sometimes to 13,000 feet, and present a different phase of beauty at each turn in the road. The *taluka* of Bangāhal forms the connecting link between Kāngra proper and Kulū, and is divided by the Dhaola Dhār into two parts: to the north Barā or Greater Bangāhal, and to the south Chhotā or Lesser Bangāhal.

Although the general trend of the three main ranges which enclose the valleys of Kāngra proper is from north-west to south-east-by-south, its one great river, the Beās, flows through this part of the District from east to west. Entering the centre of its eastern border at the southern head of the Kāngra valley, it runs past Sujānpur Tīra in a narrow gorge through the central mass of hills, flowing westwards with a southerly trend as far as Nādaun. Thence it turns sharply to the north-west, flowing through the valley past Dera Gopipur; and gradually winding westward, it passes between the northern slopes of the Sola Singhi range and the hills forming its continuation to the north. The remainder of the District is singularly devoid of great streams. The Kāngra valley is drained by several torrents into the Beās, the principal of these flowing in deep gorges through the central hills.

All three *facies* of the stratified rocks of the Himālayas are to be found. To the north, in Spiti, the Tibetan zone is represented by a series of beds extending in age from Cambrian to Cretaceous; this is separated from the central zone by the granite range between Spiti and Kulū. The rocks of the central zone consist of slates, conglomerate, and limestone, representing the infra-Blaini and overlying systems of the Simla area. Still farther to the south the third or sub-Himālayan zone consists of shales and sandstones (Sirmūr series) of Lower Tertiary age, and sandstones and conglomerates belonging to the Upper Tertiary Siwālik series. The slate or quartz-mica-schist of the central zone is fissile, and of considerable value for roofing purposes: it is quarried at and round Kanhiāra. Gypsum occurs in large quantity in Lower Spiti[1].

The main valley is the chief Siwālik tract in the Province, but its flora is unfortunately little known. An important feature is the existence of considerable forests of the *chīr* (*Pinus longifolia*), at comparatively low elevations. Kulū (or the upper valley of the Beās) has a rich temperate flora at the higher elevations; in the lower valleys and

[1] Medlicott, 'The Sub-Himālayan Ranges between the Ganges and Rāvi,' *Memoirs, Geological Survey of India*, vol. iii, part ii; Stoliczka, 'Sections across the North-West Himālayas,' *Memoirs, Geological Survey of India*, vol. v, part i; Hayden, 'Geology of Spiti,' *Memoirs, Geological Survey of India*, vol. xxxvi. part i.

in Outer Sarāj (on the right bank of the Sutlej) the vegetation is largely sub-tropical, with a considerable western element, including *Clematis orientalis*, a wild olive, &c. The flora of British LĀHUL, the Chandra-Bhāga or Chenāb valley, and SPITI, are entirely Tibetan.

The forests of Kāngra District used to abound in game of all descriptions; and of the larger animals, leopards, bears, hyenas, wolves, and various kinds of deer are still fairly common. Tigers visit the District occasionally, but are not indigenous to these hills. The ibex is found in Lāhul, Spiti, Kulū, and Barā Bangāhal; and the musk deer in Kulū and on the slopes of the Dhaola Dhār. The wild hog is common in many forests in the lower ranges. Of smaller quadrupeds, the badger, porcupine, pangolin, and otter are commonly found. Different species of wild cat, the flying squirrel, hare, and marmot abound in the hills. The bird-life of both hill and plain is richly represented; and, though game is not very abundant, many species are found. These include several varieties of pheasant, among them the *monāl* and argus, the white-crested pheasant, and the red jungle-fowl which is common in the lower valleys. Of partridges many species are found, from the common grey partridge of the plains to the snow partridge of the Upper Himālayas. Quail and snipe sometimes visit the District in considerable numbers. Ducks, geese, and other water-birds are seen upon the Beās at the beginning and end of summer. Fishing is not carried on to any great extent. Thirty-six fisheries are leased to contractors, mostly on the Beās, only a few being in the lower parts of the hill torrents.

The mean temperature at Kāngra town is returned as 53° in winter, 70° in spring, 80° in summer, and 68° in autumn. The temperature of the southern portion of Kāngra proper is much higher than this, while that of the inhabited parts of the Dhaola Dhār is about 8° lower. Endemic diseases include fever and goitre. The widespread cultivation of rice, by which the whole Kāngra valley is converted into a swamp, has a very prejudicial effect upon health.

The rainfall varies remarkably in different parts. The average annual fall exceeds 70 inches; along the side of the Dhaola Dhār it amounts to over 100; while 10 miles off it falls to about 70, and in the southern parts to about 50. Barā Bangāhal, which is on the north side of the Dhaola Dhār, has a climate of its own. The clouds exhaust themselves on the south side of the great range; and two or three weeks of mist and drizzle represent the monsoon. The rainfall in Kulū is similarly much less than that of Kāngra proper, averaging from 30 to 40 inches, while Lāhul and Spiti are almost rainless.

A disastrous earthquake occurred on April 4, 1905. About 20,000 human beings perished, the loss of life being heaviest in the Kāngra and Pālampur *tahsīls*. The station of Dharmsāla and the town of

Kāngra were destroyed. The fort and temples at Kāngra received irreparable damage, and many other buildings of archaeological interest were more or less injured.

The hills of Kāngra proper have formed for many centuries the dominions of numerous petty princes, all of whom traced their descent from the ancient Katoch (Rājput) kings of Jullundur.

History.

According to the mythical chronology of the Mahābhārata, this dynasty first established itself in the country between the Sutlej and the Beās 1,500 years before the Christian era. In the seventh century A.D., Hiuen Tsiang, the Chinese Buddhist pilgrim, found the Jullundur monarchy still undivided. At some later period, perhaps that of the Muhammadan invasion, the Katoch princes were driven into the hills, where Kāngra already existed as one of their chief fortresses; and their restricted dominions appear afterwards to have fallen asunder into several minor principalities. Of these, Nūrpur, Sība, Goler, Bangāhal, and Kāngra are included in Kāngra proper. In spite of constant invasions, the little Hindu kingdoms, secure within their Himālayan glens, long held out against the aggressive Muhammadan power. In 1009 the riches of the Nagarkot temple attracted the attention of Mahmūd of Ghazni, who defeated the Hindu princes at Peshāwar, seized the fort of Kāngra, and plundered the shrine of an immense booty in gold, silver, and jewels. But thirty five years later the mountaineers rose against the Muhammadan garrison, besieged and retook the fort, with the assistance of the Rājā of Delhi, and set up a facsimile of the image which Mahmūd had carried away. From this time Kāngra does not reappear in general history till 1360, when the emperor Fīroz Tughlak again led a force against it. The Rājā gave in his submission, and was permitted to retain his dominions; but the Muhammadans once more plundered the temple, and dispatched the famous image to Mecca, where it was cast upon the high road to be trodden under the feet of the faithful.

Two hundred years later, in 1556, Akbar commanded in person an expedition into the hills, and succeeded in permanently occupying the fort of Kāngra. The fruitful valley became an imperial demesne, and only the barren hills remained in the possession of the native chiefs. In the graphic language of Akbar's famous minister, Todar Mal, 'he cut off the meat and left the bones.' Yet the remoteness of the imperial capital and the natural strength of the mountain fastnesses encouraged the Rājput princes to rebel; and it was not until after the imperial forces had been twice repulsed that the fort of Kāngra was starved into surrender to an army commanded by prince Khurram in person (1620). On the last occasion twenty-two chieftains promised obedience and tribute, and agreed to send hostages to Agra. At one time Jahāngīr intended to build a summer residence in the valley, and

the site of the proposed palace is still pointed out in the lands of the village of Gargari. Probably the superior attractions of Kashmīr, which the emperor shortly afterwards visited, led to the abandonment of his design. At the accession of Shāh Jahān the hill Rājas had quietly settled down into the position of tributaries, and the commands of the emperor were received and executed with ready obedience. Letters patent (*sanads*) are still extant, issued between the reigns of Akbar and Aurangzeb, appointing individuals to various judicial and revenue offices, such as that of *kāzī*, *kānungo*, or *chaudhri*. In some instances the present representatives of the family continue to enjoy privileges and powers conferred on their ancestors by the Mughal emperors, the honorary appellation being retained even where the duties have become obsolete.

During the period of Muhammadan ascendancy the hill princes appear on the whole to have been treated liberally. They still enjoyed a considerable share of power, and ruled unmolested over the extensive tracts which remained to them. They built forts, waged war upon each other, and wielded the functions of petty sovereigns. On the demise of a chief, his successor paid the fees of investiture, and received a confirmation of his title, with an honorary dress from Agra or Delhi. The loyalty of the hill Rājās appears to have won the favour and confidence of their conquerors, and they were frequently deputed on hazardous expeditions, and appointed to places of high trust in the service of the empire. Thus in the time of Shāh Jahān (1646), Jagat Chand, Rājā of Nūrpur, at the head of 14,000 Rājputs, raised in his own country, conducted a most difficult but successful enterprise against the Uzbeks of Balkh and Badakhshān. Again, in the early part of the reign of Aurangzeb (1661), Rājā Māndhāta, grandson of Jagat Chand, was deputed to the charge of Bāmiān and Ghorband on the western frontier of the Mughal empire, eight days' journey beyond the city of Kābul. Twenty years later he was a second time appointed to this honourable post, and created a *mansabdār* of 2,000 horse. In later days (1758), Rājā Ghamand Chand of Kāngra was appointed governor of the Jullundur Doāb and the hill country between the Sutlej and the Rāvi.

In 1752 the Katoch principalities nominally formed part of the territories ceded to Ahmad Shāh Durrāni by the declining Delhi court. But the native chieftains, emboldened by the prevailing anarchy, resumed their practical independence, and left little to the Durrāni monarch or the deputy who still held the isolated fort of Kāngra for the Mughal empire. In 1774 the Sikh chieftain, Jai Singh, obtained the fort by stratagem, but relinquished it in 1785 to Sansār Chand, the legitimate Rājput prince of Kāngra, to whom the State was thus restored about two centuries after its occupation by Akbar. This

prince, by his vigorous measures, made himself supreme throughout the whole Katoch country, and levied tribute from his fellow chieftains in all the neighbouring States. Every year, on fixed occasions, these princes were obliged to attend his court, and to accompany him with their contingents wherever he undertook a military expedition. For twenty years he reigned supreme throughout these hills, and raised his name to a height of renown never attained by any ancestor of his race. He found himself unable, however, to cope with the Sikhs, and two descents upon the Sikh possessions in the plains, in 1803 and 1804, were repelled by Ranjīt Singh. In 1805 Sansār Chand attacked the hill State of Bilāspur (Kahlūr), which called in the dangerous aid of the Gurkhas, already masters of the wide tract between the Gogra and the Sutlej. The Gurkhas responded by crossing the latter river and attacking the Katochs at Mahal Mori, in May, 1806. The invaders gained a complete victory, overran a large part of the hill country of Kāngra, and kept up a constant warfare with the Rājput chieftains who still retained the remainder. The people fled as refugees to the plains, while the minor princes aggravated the general disorder by acts of anarchy on their own account. The horrors of the Gurkha invasion still burn in the memories of the people. The country ran with blood, not a blade of cultivation was to be seen, and grass grew and tigers whelped in the streets of the deserted towns. At length, after three years of anarchy, Sansār Chand determined to invoke the assistance of the Sikhs. Ranjīt Singh, always ready to seize upon every opportunity for aggression, entered Kāngra and gave battle to the Gurkhas in August, 1809. After a long and furious contest, the Mahārājā was successful, and the Gurkhas abandoned their conquests beyond the Sutlej. Ranjīt Singh at first guaranteed to Sansār Chand the possession of all his dominions except the fort of Kāngra and 66 villages, allotted for the support of the garrison; but he gradually made encroachments upon all the hill chieftains. Sansār Chand died in 1824, an obsequious tributary of Lahore. His son, Anrudh Chand, succeeded him, but after a reign of four years abandoned his throne, and retired to Hardwār, rather than submit to a demand from Ranjīt Singh for the hand of his sister in marriage to a son of the Sikh minister Dhiān Singh. Immediately after Anrudh's flight in 1828, Ranjīt Singh attached the whole of his territory, and the last portion of the once powerful Kāngra State came finally into the possession of the Sikhs.

Kāngra passed to the British at the end of the first Sikh War in 1846, but the commandant of the fort held out for some time on his own account. When the Multān insurrection broke out in April, 1848, emissaries from the plains incited the hill chieftains to revolt; and at the end of August in the same year, Rām Singh, a Pathānia Rājput,

collected a band of adventurers and threw himself into the fort of Shāhpur. Shortly afterwards, the Katoch chief rebelled in the eastern extremity of the District, and was soon followed by the Rājās of Jaswān and Datārpur, and the Sikh priest, Bedi Bikramā Singh. The revolt, however, was speedily suppressed; and after the victory of Gujrāt, the insurgent chiefs received sentence of banishment to Almorā, while Kāngra subsided quietly into a British District. After the outbreak of the Mutiny in 1857, some disturbances took place in the Kulū subdivision; but the vigorous measures of precaution adopted by the local authorities, and the summary execution of the six ringleaders and imprisonment of others on the occasion of the first overt act of rebellion, effectually subdued any tendency to lawlessness. The disarming of the native troops in the forts of Kāngra and Nūrpur was effected quietly and without opposition. Nothing has since occurred to disturb the peace of the District.

Few Districts are richer in antiquities than Kāngra. The inscription at PATHYĀR is assigned to the third century B.C., and that at KANHIĀRA to the second century A.D. It is impossible to fix the date of the famous fort at KĀNGRA TOWN. A temple in it was plundered by Mahmūd of Ghazni in 1009, and an imperfectly legible rock-inscription, formerly outside one of the gates of the fort and now in the Lahore Museum, is assigned to a period at least 400 years earlier. The small temple of Indreswara at Kāngra dates from about the ninth century. The beautiful shrine of Baijnāth at Kiragrāma was formerly attributed to the same period, but recent investigations point to a date three or four centuries later. The present temple of Bajreswari Devi at Bhawan, a suburb of Kāngra, is a modern structure, but it conceals the remains of an earlier building, supposed to date from 1440. It has acquired a repute, to which it is not entitled, as the successor of the temple that was sacked by Mahmūd. Remains found at Kāngra prove that it was once a considerable Jain centre. The fort at NŪRPUR, built in the sixteenth and seventeenth centuries, contains a curious wooden temple; and in 1886 a temple of much earlier date, with sculptures unlike anything hitherto found in the Punjab. was unearthed. At Masrur, in the Dehra *tahsīl*, are some rock-temples of uncertain date. In the Kulū valley, the principal objects of antiquarian interest are the temples of Bajaura. One of them, probably the older of the two, has been partially freed from the débris and boulders in which it was buried. The other, which shows traces of Buddhist workmanship, and dates from the eleventh century, is decorated with carvings of great beauty. The fort and temples of Kāngra town received irreparable damage in the earthquake of 1905.

The population of the District at the last four enumerations was.

(1868) 743,882, (1881) 730,845, (1891) 763,030, and (1901) 768,124, dwelling in 3 towns and 715 villages. It is divided into the seven *tahsīls* of KĀNGRA, NŪRPUR, HAMĪRPUR, DERA GOPIPUR, PĀLAMPUR, KULŪ, and SARĀJ; of which the first five are in Kāngra proper, the two last forming the Kulū subdivision. The head-quarters of these are at the places from which each is named, except in the case of Kulū and Sarāj, whose head-quarters are at Sultānpur and Banjār respectively. The towns are the municipalities of DHARMSĀLA, the head-quarters of the District, KĀNGRA, and NŪRPUR.

Population.

The following table shows the chief statistics of population in 1901:—

Tahsīl.	Area in square miles.	Number of Towns.	Number of Villages.	Population.	Population per square mile.	Percentage of variation in population between 1891 and 1901.	Number of persons able to read and write.
Kāngra	429	2	134	126,335	294·5	+ 1·0	7,242
Pālampur	443	...	113	132,955	300·1	+ 2·6	7,477
Kulū and Sarāj	1,342	...	68	119,585	89·1	+ 3·8	3,183
Hamīrpur	601	...	64	161,424	268·6	− 0·8	6,077
Dera Gopipur	516	...	145	125,536	243·3	...	6,397
Nūrpur	525	1	191	102,289	194·8	− 2·6	4,241
District total	9,978	3	715*	768,124	76·9	+ 0·6	34,617

NOTE.—The figures for the areas of *tahsīls* are taken from revenue returns. The total District area is that given in the *Census Report*.

* These figures are taken from the *Census Report* of 1901, but the correct number of villages is now 714, the number for the Kulū and Sarāj *tahsīls* being 67.

In Kāngra proper Hindus number 608,252, or 94 per cent. of the total; Muhammadans, 38,685, or 6 per cent.; and Sikhs, 1,199. Owing to the vast tracts of uncultivable hill-side, the density of the population is only 77 persons per square mile, varying from 300 in the Pālampur *tahsīl* to 65·4 in Kulū; but if the cultivated area alone be considered, the density is 834, almost the highest in the Province. The people speak a great variety of dialects of the group of languages classed together as Pahārī, or the language of the hills.

The distinguishing feature in the population is the enormous preponderance of the Hindu over the Muhammadan element, the latter being represented only by isolated colonies of immigrants, while the mass of the people have preserved their ancient faith in a manner wholly unknown in the plains. This circumstance lends a peculiar interest to the study of the Hindu tribes—their castes, divisions, and customs.

The Brāhmans (109,000) number nearly one-seventh of the total population. Almost without exception, they profess themselves to belong to the great Sāraswat family, but recognize an infinity of internal

subdivisions. The first distinction to be drawn is that between Brāhmans who follow, and Brāhmans who abstain from, agriculture. Those who have restricted themselves to the legitimate pursuits of the caste are considered to be pure Brāhmans; while the others are no longer held in the same reverence by the people at large.

The Rājputs number even more than the Brāhmans, 154,000 people returning this honourable name. The Katoch Rājās boast the bluest blood in India, and their prejudices and caste restrictions are those of a thousand years ago. The Katoch clan is a small one, numbering only 4,000. The Rāthis (51,000) constitute the higher of the two great agricultural classes of the valley, and are found chiefly in the Nūrpur and Hamīrpur *tahsīls*. The other is the Ghirths (120,000), who are Sūdras by status. In all level and irrigated tracts, wherever the soil is fertile and produce exuberant, the Ghirths abound; while in the poorer uplands, where the crops are scanty and the soil demands severe labour to compensate the husbandman, the Rāthis predominate. It is as rare to find a Rathi in the valleys as to meet a Ghirth in the more secluded hills. Each class holds possession of its peculiar domain, and the different habits and associations created by the different localities have impressed upon each caste a peculiar physiognomy and character. The Rāthis generally are a robust and handsome race; their features are regular and well-defined, their colour usually fair, and their limbs athletic, as if exercised and invigorated by the stubborn soil upon which their lot is thrown. On the other hand, the Ghirth is dark and coarse-featured, his body is stunted and sickly, and goitre is fearfully prevalent among his race. The Rāthis are attentive and careful agriculturists; their women take little or no part in the labours of the field. The Ghirths predominate in the valleys of Pālam, Kāngra, and Rihlu. They are found again in the Hal Dūn or Harīpur valley, and are scattered elsewhere in every part of the District, generally possessing the richest lands and the most open spots in the hills. They are a most hard-working race.

Among the religious orders in the hills, the most remarkable are the Gosains (1,000), who are found principally in the neighbourhood of Nādaun and Jawāla Mukhi, but are also scattered in small numbers throughout the District. Many of them are capitalists and traders in the hills, and they are an enterprising and sagacious tribe. By the rules of their caste retail trade is interdicted, and their dealings are exclusively wholesale. Thus they possess almost a monopoly of the trade in opium, which they buy up in Kulū and carry down to the plains of the Punjab. They speculate also in *charas*, shawl-wool, and cloth. Their transactions extend as far as Hyderābād in the Deccan, and, indeed, over the whole of India.

Among the hill tribes the most prominent are the Gaddis (9,000).

Some have wandered down into the valleys which skirt the base of the Dhaola Dhār, but the great majority live on the heights above. They are found from an elevation of 3,500 or 4,000 feet up to 7,000 feet, above which altitude there is little or no cultivation. They preserve a tradition of descent from refugees from the Punjab plains, stating that their ancestors fled from the open country to escape the horrors of the Musalmān invasions, and took refuge in these ranges, which were at that period almost uninhabited. The term Gaddi is a generic name, under which are included Brāhmans and Khattrīs, with a few Rājputs, Rāthis, and Thākurs. The majority, however, are Khattrīs. Besides the Gosains, the commercial castes are the Khattrīs (7,000) and Sūds (6,000). Of the menial castes, the Chamārs (leather-workers) are the most numerous (57,000). About 77 per cent. of the population are returned as agricultural.

The Church Missionary Society has a station at Kāngra town, founded in 1854, with a branch establishment at Dharmsāla; and there is also a station of the Moravian Mission at Kyelang in Lāhul, founded in 1857, and one of the American United Presbyterian Mission in Sarāj. The District in 1901 contained 203 native Christians.

Agriculture.

In the Kāngra *tahsīl* the subsoil rests on beds of large boulders which have been washed down from the main ranges, and the upper stratum, consisting of disintegrated granite mixed with detritus from later formations, is exceedingly fertile. In the neighbourhood of the secondary ranges the soil, though of excellent quality, is less rich, being composed of stiff marls mixed with sand, which form a light fertile mould, easily broken up and free from stones. A third variety of soil is found wherever the Tertiary formation appears: it is a cold reddish clay of small fertility, containing a quality of loose water-worn pebbles; there are few trees in this soil, and its products are limited to gram and the poorer kinds of pulse, while in the first two descriptions the hill-sides are well forested and every kind of crop can be grown. The cultivated area is divided into fields generally unenclosed, but in some parts surrounded by hedges or stone walls. In the Kāngra valley, where rice cultivation prevails, the fields descend in successive terraces levelled and embanked, and where the slope of the land is rapid they are often no bigger than a billiard table; in the west of the Dera and Nūrpur *tahsīls*, where the country is less broken, the fields are larger in size, and the broad sloping fields, red soil, and thick green hedges are charmingly suggestive of a Devonshire landscape. In many parts, and notably in the Kāngra valley, wide areas bear a double harvest.

In Kulū proper the elevation is the chief factor in determining the nature of the crops sown, few villages lying as low as 3,000 feet and some as high as 9,000. In both Kāngra and Kulū proper the sowing

time varies with the elevation, the spring crop being sown from September to December and the autumn crop from April to July. The whole of Lāhul and Spiti is covered with snow from December to the end of April, and sowings begin as soon as the land is clear. For the District as a whole the autumn crop is the more important, occupying 53 per cent. of the area cropped in 1903-4.

The land is held, not as in the plains by more or less organized village communities, but by individual holders whose rights originated in a grant by a Rājā of a right of tenancy in the royal domains. In Kulū only forest and cultivable and cultivated lands have been measured, amounting to 1,342 square miles.

The area for which details are available from the revenue records of 1903-4 is 3,857 square miles, as shown below:—

Tahsil.	Total.	Cultivated.	Irrigated.	Cultivable waste.	Forests.*
Kāngra	429	102	53	37	264
Pālampur	443	125	62	52	239
Kulū	1,054	67	14	12	963
Sarāj	289	58	2	12	206
Hamīrpur	602	234	5	101	205
Dera Gopipur	515	167	26	121	136
Nūrpur	525	170	22	72	208
Total	3,857	923	184	407	2,221

* The revenue returns include only a portion of the forest area.

Wheat is the chief crop of the spring harvest, covering 342 square miles; barley covered 97 square miles, and gram only 42. Maize and rice are the mainstay of the autumn harvest, covering 223 and 164 square miles respectively. Pulses covered 100 square miles. Of the millets, *mandal*, Italian millet, and *chīna* are the most important. There were 6,039 acres under cotton. The tea industry is an important one in Kāngra, 15 square miles being under tea. There are 34 gardens owned by Europeans, and the total output is estimated at over a million pounds of tea annually[1]. Potatoes, introduced shortly after annexation, are now largely cultivated in the higher hills; and the fields round the Gaddi peasants' houses, which formerly produced maize, wheat, or barley hardly sufficient to feed the families which owned them, now yield a very lucrative harvest of potatoes. In Kulū proper poppy is an important crop, covering 2,102 acres. The climate of Kulū is eminently suited for the production of all kinds of European fruits and vegetables, and several European planters do a large trade in pears and apples. In Lāhul barley, wheat, peas, and buckwheat are the principal crops, and in Spiti barley.

[1] This was written before the earthquake of 1905, which had disastrous effects on the tea industry.

The chief improvements in agriculture have been the introduction of tea and the potato. The cultivated area increased by about 5 per cent. during the ten years ending 1900, owing to the efforts of individuals who have broken up waste land near their holdings; but there is no scope for any considerable increase. Loans from Government are not greatly in demand, the total amount advanced under the Agriculturists' Loans Act during the five years ending 1903–4 being only Rs. 208.

The indigenous breed of cattle is small but strong, and attempts to improve it by the importation of bulls from Hissār have not been satisfactory, the latter being quite unsuited to the climate, and unfitted to mate with the small hill cows. A few bulls of the Dhanni breed have recently been imported from Jhelum District, and it is hoped that they will prove more suitable. The Gūjars are the only people who make a trade of selling milk and *ghī*, and who keep herds of buffaloes; of these, some have a fixed abode in the District and pasture their cattle in the adjoining waste, while others move with their herds, spending the summer on the high ranges, and the winter in the woody parts of the low hills. Buffalo herds are not allowed to enter the Kulū subdivision. The cattle of Lāhul are a cross between the Tibetan yak and the Himālayan breed of cattle. Sheep and goats form in Kāngra proper the chief support of the pastoral tribe of the Gaddis, who move with their flocks, wintering in the forests in the low hills, retreating in the spring before the heat up the sides of the snowy range, and crossing and getting behind it to avoid the heavy rains in the summer. Large flocks are also kept in the Kulū and Sarāj *tahsils*. There are few ponies in the District and not many mules; the ponies of Kāngra and Kulū proper are poor, but those of Lāhul and Spiti are known for their hardiness and sureness of foot. One pony stallion is maintained by the District board.

Of the total area cultivated in 1903–4, 184 square miles, or nearly 20 per cent., were classed as irrigated. Irrigation is effected entirely by means of channels from the hill streams which lead the water along the hill-sides, often by tortuous channels constructed and maintained with considerable difficulty, and distribute it over the fields. One of these cuts, from the Gaj stream, attains almost the dimensions of a canal, and the channels from the Beās are also important. Most of these works were engineered by the people themselves, and supply only the fields of the villages by which they were constructed; but a few, for the most part constructed by the Rājās, water wider areas, and an organized staff for their maintenance is kept up by the people without any assistance from Government. In Lāhul and Spiti cultivation is impossible without irrigation, and glacier streams are the chief source.

The forests are of great importance, comprising little short of a quarter of the uncultivated area. Under the Forest department are 87 square miles of 'reserved,' 2,809 of protected, and 296 of unclassed forests, divided into the two Forest divisions of Kāngra and Kulū, each under a Deputy-Conservator. About 4 square miles of unclassed forests are under the Deputy-Commissioner. Several varieties of bamboo cover the lower hills, the bamboo forests occupying an area of 14,000 acres. The produce exported from the Government forests in Kāngra proper is mainly *chīl* (*Pinus longifolia*) and bamboo, while *deodār* is the chief product of Kulū. In 1903–4 the forest revenue was 2·8 lakhs.

Forests.

Valuable metal ores are known to exist both in Kāngra proper and in Kulū; but, owing chiefly to the want of means of carriage, of fuel, and of labour, they are practically unworked. Iron was smelted for some years in the Kāngra hills, and in 1882 there were eight mines yielding 90 maunds of iron a year; but working ceased entirely in 1897. Ores of lead, copper, and antimony have been found, and in Kulū silver and crystal, while gold in small quantities is sometimes washed from the sands of the Beās and Pārbati; coal, or rather lignite, is also produced, but in insignificant quantities. A lease of the old Shigri mines in Lāhul has recently been granted for the purpose of working stibnite and galena. With this exception, the only minerals at present worked are slates and sandstone for building: the Kāngra Valley Slate Company sells 700,000 slates annually, and three other quarries produce together about 83,000, the total value exceeding Rs. 50,000. Several hot mineral springs near Jawāla Mukhi are impregnated with iodide of potassium and common salt. Hot springs occur at several places in Kulū, the most important being at Manikarn in the Pārbati valley, and at Bashist near the source of the Beās.

Minerals.

The District possesses no factories except for the manufacture of tea, and there are but few hand industries. The cotton woven in the villages holds its own against the competition of European stuffs, but the industry is seriously handicapped by the small quantity of cotton grown locally. Nūrpur used to be a seat of the manufacture of *pashmīna* shawls, but the industry has long been declining; silver ornaments and tinsel printed cloths are made at Kāngra. Baskets are made in the villages of Kāngra proper and Kulū, and blankets in Kulū, Lāhul, and Spiti.

Trade and communications.

The principal exports to the plains consist of rice, tea, potatoes, spices, opium, blankets, *pashmīna*, wool, *ghī*, honey, and beeswax, in return for which are imported wheat, maize, gram and other pulses, cotton, tobacco, kerosene oil, and piece-goods. The chief centres of the Kāngra trade in the plains are Hoshiārpur, Jullundur, Amritsar,

and Pathānkot. There is a considerable foreign trade with Ladākh and Yārkand through Sultānpur in Kulū, the exports being cotton piece-goods, indigo, skins, opium, metals, manufactured silk, sugar, and tea, and the imports ponies, borax, *charas*, raw silk, and wool. The principal centres of internal trade are KĀNGRA, Pālampur, SUJĀNPUR TIRA, JAWĀLA MUKHI, and NŪRPUR.

No railway traverses the District, though one from Pathānkot to Pālampur was contemplated. The principal roads are the Kāngra valley cart-road, which connects Pālampur and Pathānkot, with a branch to Dharmsāla, and the road from Dharmsāla, via Kāngra, to Hoshiārpur and Jullundur. The former is partly metalled and a mail tonga runs daily. A road runs from Pālampur to Sultānpur in Kulū over the Dulchi pass (7,000 feet), which is open summer and winter, going on to Simla. Another road runs through Kulū, and, crossing the Rohtang pass (13,000 feet) into Lāhul, forms the main route to Leh and Yārkand. Ladākh is reached from Lāhul over the Bāra Lācha (16,250 feet). The usual route to Spiti is through Lāhul and over the Kanzam pass. The total length of metalled roads is 56 miles, and of unmetalled roads 1,073 miles. Of these, all the metalled and 353 miles of the unmetalled roads are under the Public Works department, and the rest under the District board.

Famine is unknown, the abundance of the rainfall always assuring a sufficient harvest for the wants of the people, and the District was classed by the Irrigation Commission of 1903 as secure. The area of crops matured in the famine year 1899-1900 amounted to 69 per cent. of the normal.

Administration.

The District is in charge of a Deputy-Commissioner, aided by three Assistant or Extra-Assistant Commissioners, of whom one is in charge of the Kulū subdivision and one in charge of the District treasury. Kāngra proper is divided into the five *tahsīls* of KĀNGRA, NŪRPUR, HAMĪRPUR, DERA GOPIPUR, and PALAMPUR, each under a *tahsīldār* and a *naib-tahsīldār*; the KULŪ SUBDIVISION, consisting of the Kulū *tahsīl* under a *tahsīldār* and a *naib-tahsīldār*, the Sarāj *tahsīl* under a *naib-tahsīldār*: and the mountainous tracts of LĀHUL and SPITI, which are administered by local officials termed respectively the *thākur* and *nono*. The *thākur* of Lāhul has the powers of a second-class magistrate and can decide small civil suits; the *nono* of Spiti deals with all classes of criminal cases, but can punish only with fine. The criminal administration of Spiti is conducted under the Spiti Regulation I of 1873. Two officers of the Forest department are stationed in the District.

The Deputy-Commissioner as District Magistrate is responsible for the criminal justice of the District, under the supervision of the Sessions Judge of the Hoshiārpur Sessions Division. The subdivisional officer

of Kulū hears appeals from the *tahsīldār* of Kulū, the *naib-tahsīldār* of Sarāj, the *thākur* of Lāhul, and the *nono* of Spiti. Civil judicial work in Kāngra proper is under a District Judge, under the Divisional Judge of the Hoshiārpur Civil Division. In Kulū the subdivisional officer generally exercises the powers of a District Judge, and the Deputy-Commissioner of Kāngra, if a senior official, is appointed Divisional Judge of Kulū. The only Munsif sits at Kāngra, while there are seven honorary magistrates, including the Rājās of Lambāgraon, Nādaun, and Kutlehr in Kāngra proper. The District is remarkably free from serious crime. Civil suits are chiefly brought to settle questions of inheritance involving the rights *inter se* of widows, daughters, and distant agnatic relatives.

The revenue history and conditions differ radically from those of the Punjab proper. The hill states, now combined in Kāngra District, were merely a number of independent manors. Each Rājā enjoyed full proprietary rights, and was a landlord in the ordinary sense of the word, leasing his land at will to individual tenants on separate *pattas* or leases. This fact explains the two prominent characteristics of the revenue system, its variety and its continuity. Just as, on the one hand, the intimate local knowledge of the Rājā and his agent enabled them to impose a rent fixed or fluctuating, in cash or kind, according to the resources and the needs of each estate, so, on the other hand, the conquerors, Mughal and Sikh, imposed their tribute on the several Rājās, leaving them to devise the source and the method of collection. The Mughals, it is true, reserved certain areas as imperial demesnes, and here they introduced *chaudhris* who were responsible both for the collection of the revenue and for the continued cultivation of the soil. They made no change, however, either in assessments or in methods of collection. The Rājās depended on their land-agents (called variously *kārdār*, *hākim*, *amīn*, or *palsara*), and these in turn had under them the *kotwāls*, who were responsible for eight or ten villages apiece. The village accountant, or *kāyāt*, the keeper of the granary (*kotiāla*), with constables, messengers, and forest watchers, made up the revenue staff. Every form of assessment was to be found, from the division of the actual produce on the threshing-floor to permanent cash assessments.

Ranjīt Singh was the first to interfere with the Rājās' system. He appointed a *nazim*, or governor of the hill territory, who managed not only the revenue, but the whole expenditure also. Under him were *kārdārs*, who either farmed the revenue of their *parganas*, or accepted a nominal salary and made what they could. The ancient system, however, has survived the misrule of the Sikhs. Every field in the valley is clearly defined; and the proportion of its produce payable to Government is so firmly established that, even under the present cash

assessments, it forms the basis on which the land revenue is distributed among individual cultivators.

The first act of the British officers was to apply the village system of the plains to the Kāngra valley. The tenants, with their private cultivating rights, became the proprietary body, with joint revenue-paying responsibilities. The waste, formerly regarded as the property of the Rājās, became attached to the village communities as joint common land. The people thus gained the income arising from the common land, which had previously been claimed by the state.

A summary settlement was made in 1846 by John Lawrence, Commissioner of the Jullundur Doab, and Lieutenant Lake, Assistant Commissioner, based entirely on the Sikh rent-roll with a reduction of 10 per cent. The first regular settlement, made in 1849, reduced the demand on 'dry' land by 12 per cent., maintaining the former assessment on 'wet' land. A revised settlement, made in 1866–71, had for its object the preparation of correct records-of-rights; but the assessment was not revised until 1889–94, when an increase of 19 per cent. was announced. Rates varied from Rs. 1–5–4 to R. 0–14–7 per acre. The total demand in 1903–4, including cesses, was about 10·7 lakhs. The average size of a proprietary holding is 2 acres. There are a number of large *jāgīrs* in the District, the chief of which are Lambāgraon, Nādaun, and Dādo Sība in Kāngra proper, and *wazīri* Rūpi in Kulū.

A system of forced labour known as *begār* was in vogue in the Kāngra hills until recently, and dates back from remote antiquity. All classes who cultivate the soil were bound to give, as a condition of the tenure, a portion of their labour for the exigencies of the state. Under former dynasties the people were regularly drafted and sent to work out their period of servitude wherever the ruler chose. So inveterate had the practice become that even artisans, and other classes unconnected with the soil, were obliged to devote a portion of their time to the public service. Under the British Government the custom was maintained for the conveyance of travellers' luggage and the supply of grass and wood for their camps, but was practically abolished in Kāngra proper in 1884, and in Kulū in 1896.

The collections of land revenue alone and of total revenue are shown below, in thousands of rupees:—

	1880–1.	1890–1.	1900–1.	1903–4.
Land revenue . .	6,19	6,57	7,35	7,50
Total revenue . .	8,76	9,92	10,57	10,55

The District contains three municipalities, DHARMSĀLA, KĀNGRA, and NŪRPUR. Outside these, local affairs are managed by a District board, and by the local boards of Kāngra, Nūrpur, Dera Gopipur,

Hamīrpur, and Pālampur, the areas under which correspond with the *tahsīls* of the same names. The chief source of their income is the local rate, a cess of Rs. 8-5-4 per cent. on the land revenue in Kāngra, of Rs. 10-6-8 in Kulū, and of Rs. 7-8-10 in the *wazīri* of Spiti. The expenditure in 1903-4 was Rs. 1,45,000, public works being the principal item.

The District is divided into 15 police stations, 13 in Kāngra proper and 2 in Kulū; and the police force numbers 412 men, with 901 village watchmen. The Superintendent usually has three inspectors under him. The jail at head-quarters contains accommodation for 150 prisoners. It has, however, been condemned as unsafe, and a new one is in contemplation.

Kāngra stands seventh among the twenty-eight Districts of the Province in respect of the literacy of its population. In 1901 the proportion of literate persons was 4·5 per cent. (8·4 males and 0·3 females). The number of pupils under instruction was 2,591 in 1880-1, 3,881 in 1890-1, 3,341 in 1900-1, and 3,852 in 1903-4. In the last year the District contained 6 secondary and 57 primary (public) schools for boys and 9 for girls, and 3 advanced and 20 elementary (private) schools, with 266 girls in the public and 38 in the private schools. The principal educational institution is the high school at Pālampur, founded in 1868, and maintained by the District board. There are 5 middle schools for boys, of which 2 are Anglo-vernacular; 3 of these are maintained by the District board and 2 are aided. The total expenditure on education in 1903-4 was Rs. 35,000, of which Rs. 7,000 was derived from fees, Rs. 4,000 from Government grants, and Rs. 2,000 from subscriptions and endowments. Municipalities contributed Rs. 4,000, and the balance was paid out of District funds.

Besides the civil hospital at Dharmsāla, the District has 8 outlying dispensaries. In 1904, 739 in-patients and 101,159 out-patients were treated, and 1,769 operations were performed. The expenditure was Rs. 19,000, of which Rs. 14,000 was met from District and Rs. 3,000 from municipal funds.

The number of successful vaccinations in 1903-4 was 40,825, representing the high proportion of 53 per 1,000 of the population. Vaccination is compulsory in Dharmsāla.

[H. A. Rose, *District Gazetteer of Kāngra Proper* (1905); A. Anderson, *Settlement Report of Kāngra Proper* (1897); A. H. Diack, *Gazetteer of Kulū, Lāhul, and Spiti* (1897), *The Kulū Dialect of Himdi* (1896), and *Settlement Report of Kulū Subdivision* (1898).]

Kāngra Tahsīl.—*Tahsil* of Kāngra District, Punjab, lying between 31° 54′ and 32° 23′ N. and 76° 8′ and 76° 41′ E., with an area of 429 square miles. The *tahsīl* lies entirely in the hills, between the Dhaola Dhār, which separates it from Chamba on the north, and the

Kālidhār hills on the south. The Bāngangā and Gaj flow through it in a south-westerly direction to join the Beās. The main range of the Dhaola Dhār and its spurs are in many places covered with forest. The population in 1901 was 126,335, compared with 125,138 in 1891. It contains the towns of DHARMSĀLA (population, 6,971) and KĀNGRA (4,746), the head-quarters; and 134 villages, of which KANHIĀRA and CHARI are of archaeological interest. The land revenue and cesses in 1903-4 amounted to 2 lakhs.

Kāngra Town (*Nagarkot*[1] or *Kot Kāngra*).—Town in Kāngra District, Punjab, formerly the head-quarters of the District and still the head-quarters of the Kāngra *tahsīl*, situated in 30° 5′ N. and 76° 16′ E. Population (1901), 4,746. Lying on the northern slope of the low ranges which run through the centre of the District, it faces Dharmsāla and commands a fine view of the Kāngra valley. In its lower suburb (called Bhawan) was the temple of Devī Bajreshri, whose gilded cupola was, until the earthquake of 1905, a conspicuous landmark, and which contained a late Sanskrit inscription of about 1430 dedicated to Jawāla Mukhi and mentioning Sansār Chand I, the Katoch king of Kāngra. On the lofty ridge south of and above the town stood Kot Kāngra or 'the fort,' surrounded on three sides by inaccessible cliffs. In its highest part were the dwellings and temples of the old Katoch kings of Kāngra The town, with the fort and temples, was destroyed by the earthquake of April 4, 1905, in which 1,339 lives were lost in the town. Seven Europeans were among the killed.

Kāngra has from time immemorial been a stronghold of the Katoch Rājās. Firishta, in his introductory chapter narrating the exploits of a former king of Kanauj, who overran the hills from Kumaun to Kashmir, subduing 500 petty chiefs, distinctly alludes to the Rājā of Nagarkot. The riches of the temple attracted the attention of Mahmūd of Ghazni, who in 1009 took the fort and plundered the temple, carrying off, it is said, 700,000 golden *dīnārs*, 700 *mans* of gold and silver plate, 200 *mans* of pure gold in ingots, 2,000 *mans* of unwrought silver, and 20 *mans* of jewels, including pearls, corals, diamonds, and rubies. The temple plundered by Mahmūd was probably situated within the fort and was not the temple of Devī in Bhawan, as has been supposed. Thirty-five years later the place is said to have been recaptured after a siege of four months by the Hindu princes under the Rājā of Delhi. Kāngra submitted to Fīroz Shāh in 1360, who again plundered the temple; and in 1388 prince Mahmūd Tughlak, when a fugitive from Delhi, found an asylum here till called to the throne in 1390. Kāngra was permanently garrisoned under the Mughals, and should have passed to Ahmad Shāh Durrāni in the

[1] Nagarkot appears to have been the name of the town and Kāngra of the fort.

cession of 1752; but the governor, Saif Alī Khān, refused to surrender it, and maintained himself in the fort for twenty years. After his death in 1774, Sansār Chand, Rājā of Kāngra, laid siege to the fort and, being unable to reduce it, called in the Sikh leader Jai Singh, Kanhaya, to whom, and not to the Rājā, it surrendered. Jai Singh, however, withdrew in 1785, and Sansār Chand possessed himself of the fort. Kāngra was besieged from 1806 to 1809 by the Gurkhas, who were only repelled by the aid of Ranjīt Singh. In return for his services the Mahārājā appropriated for himself the fort, which was held by the Sikhs when the Jullundur Doāb was ceded to the British in 1846. The governor refusing to surrender, the fort was invested and capitulated after a two months' siege. The head-quarters of the District were first fixed at Kāngra, but were transferred to Dharmsāla in 1855.

The temple of Devī above mentioned was one of the most ancient and famous shrines in Northern India, and was largely resorted to by pilgrims from the plains at the great festivals held in March, April, and October. The municipality was created in 1867. The income during the ten years ending 1902–3 averaged Rs. 5,500, and the expenditure Rs. 5,300. In 1903–4 the income was Rs. 5,500, chiefly derived from octroi; and the expenditure was Rs. 6,500. Its position on the Kāngra valley cart-road makes it an important centre of internal trade. The chief educational institution is an Anglo-vernacular middle school maintained by the Church Missionary Society, which has a station here. There is a Government dispensary.

Kangundi Tahsīl.—*Zamīndāri tahsīl* in the south-west corner of North Arcot District, Madras, lying between 12° 35′ and 12° 56′ N. and 78° 14′ and 78° 35′ E., with an area of 347 square miles. It comprises the Kangundi *zamīndāri*. The head-quarters are now the village of Kuppam, which is also the residence of the *zamīndār*; but the *tahsīl* gets its name from the village of KANGUNDI, which was formerly the chief town in this part of the country. The population rose from 54,052 in 1891 to 64,446 in 1901, the increase during the decade (19 per cent.) being the highest in any portion of the District. The increase was largely due to the existence of several gold-mines, a continuation of those in the adjoining Kolār Gold Fields, in the part which borders on Mysore State. The number of villages is 268. The *peshkash* (including cesses) payable to Government in 1903–4 amounted to Rs. 29,500.

Kangundi Village.—Village in the *zamīndāri tahsīl* of the same name in North Arcot District, Madras, situated in 12° 46′ N. and 78° 27′ E. Population (1901), 637. It was once the chief place in the neighbourhood and the residence of the *zamīndār* of Kangundi, but has been depopulated by fever and famine. It lies at the base

of a precipitous hill, crowned with the ruins of a fort which must have been a place of great strength. The *zamīndār's* old palace is also an imposing pile.

Kānheri Caves.—Caves in Thāna District, Bombay, situated in a wild picturesque valley in the heart of the island of Salsette, in 19° 13′ N. and 72° 59′ E., about 6 miles from Thāna. They may be reached from the Bhāndup station of the Great Indian Peninsula Railway, or from the Borivli station of the Bombay, Baroda, and Central India Railway. The name Kanhagiri, perhaps a Prākrit corruption of the Sanskrit Krishnagiri or 'Krishna's hill,' seems to show that the fame and holiness of Kānheri date from before the rise of Buddhism. From the simple style of some of them, and an inscription in the caves at Nāsik, it is presumed that they date from 100 B.C. to A.D. 50. Additions both of fresh caves and of new ornaments in old caves seem to have been made in the fourth, fifth, and sixth centuries A.D. The caves consist of numerous dwellings and some *chaityas* or relic shrines In all, there are upwards of a hundred excavations. Except the *chaityas* and the peculiarly planned cave known as the Darbār cave, they have stone sleeping benches running round the walls. There are some fifty-four inscriptions, which have been partly deciphered and relate the names of the builders. The cathedral or large *chaitya* cave is the most important of the group. In front of it were once two or three relic mounds, of which the largest was built of stone and brick and was from 12 to 16 feet high. The Darbār cave or 'place of assembly' is the next largest, and is distinguished by two long low seats or benches running down the whole length of the centre.

[For a full description of the Kānheri caves, see *Bombay Gazetteer*, vol. xiv, pp. 121-95.]

Kanhiāra.—Village in the District and *tahsīl* of Kāngra, Punjab, situated in 32° 12′ N and 76° 24′ E., 4 miles east of Dharmsāla. Population (1901), 3,446. The name is a corruption of Krishna-yashas-ārāma, according to Cunningham, or possibly Krishna-vihāra. An inscription cut on two massive granite blocks in the Brahmi and Kharoshthi scripts found here would appear to prove the existence of a Buddhist monastery (*ārāma*) at this place in the second century A.D. Slate is quarried at and round the village. Kanhiāra suffered seriously from the earthquake of April 4, 1905.

[*Archaeological Survey Reports*, vol. v, p. 177; and *Epigraphia Indica*, vol. vii, p. 116.]

Kani.—Northernmost township of the Lower Chindwin District, Upper Burma, lying on both sides of the Chindwin river, between 22° 2′ and 22° 50′ N. and 94° 16 and 95° 5′ E., with an area of 1,788 square miles. The population was 41,232 in 1891, and 48,717 in 1901, distributed in 256 villages, Kani (population. 1,097), about

40 miles above Monywa, on the right bank of the Chindwin, being the head-quarters. A large portion of the township consists of 'reserved' forests, and the whole is hilly and well watered. Cultivation is confined to the narrow valleys in that portion lying west of the Chindwin, and to the flatter part east of the river. The area cultivated in 1903-4 was 32 square miles, and the land revenue and *thathameda* amounted to Rs. 1,11,000.

Kanigiri Tāluk.—*Tāluk* of Nellore District, Madras, lying between 15° 1′ and 15° 35′ N. and 79° 5′ and 79° 41′ E., with an area of 1,014 square miles. It is bounded on the south by the Udayagiri *tāluk*, and on the east for some distance by the Mālakonda range of hills. The population, which was 131,222 in 1891, had fallen in 1901 to 110,813, a succession of bad seasons having caused large numbers to emigrate. The demand on account of land revenue and cesses in 1903-4 amounted to Rs. 65,000. The *tāluk* contains one town, KANIGIRI (population, 5,528), the head-quarters; and 188 villages. Only 34 of the latter belong to Government, and 22 are *shrotriems*, interspersed among the more numerous *zamīndāri* villages of the KĀLAHASTI and VENKATAGIRI Estates. The head-quarters, formerly at Mogallūr, a *zamīndāri* village, were removed to Kanigiri in 1879. Besides the *tāluk* office, there is a District Munsif's court at this place. The general aspect of the country is forbidding. Treeless plains of red sand stretch in all directions. At Kanigiri there is a block of rocky hills. In the north western corner near Nandanavanam some remarkable sandhills from 29 to 30 feet in height spread over a considerable area. They are probably formed of detritus from the neighbouring hills drifted by the force of the fierce land-wind. Wells are fairly numerous. The Paleru, the Manneru, and their affluents, rising among the ranges of hills to the west, drain the *tāluk*. *Rāgi* and *cambu* are the staple food crops. *Aruga* is also grown and is preferred to the others as a food. Rice is imported. Education is backward, and not a few villages are to be found where the village accountant is the only person who can read and write. The *tāluk* is wanting in facilities for irrigation. There are a few tanks, of which nine belong to Government, but none of them commands any considerable area. Various irrigation projects are under consideration, and the Hājipuram project, to impound the freshes of the Dommaleru, is in progress.

Kanigiri Town.—Head quarters of the *tāluk* of the same name in Nellore District, Madras, situated in 15° 25′ N. and 79° 31′ E. Population (1901), 5,528. The town has a large market, to which cotton goods and iron are imported from Madras, chillies and tobacco from Kistna, and sundry articles from the Ceded Districts. Spinning instruments, razors, and scissors are manufactured and largely exported: the slippers made here are considered superior to those in other parts

of the District; and the granite of the Kanigiri hill supplies excellent building stone. This hill rises to a considerable height on the north of the town, forming a feature in the landscape for many miles round. On it is a rugged table-land about a square mile in area, where a town is said to have once stood. It is supposed to have been fortified by one of the Gajapatis of Orissa and designated Kanakagiri Vijayamārtānda Durgam, combining the name of the hill with that of the deity to whom a temple on it was dedicated. The remains of some of the defences still stand. The place was taken in the sixteenth century by Krishna Deva of Vijayanagar, and played a conspicuous part in local feuds until it was destroyed by Haidar Alī.

Kanjamalai.—Hill in the District and *tāluk* of Salem, Madras, situated in 11° 37′ N. and 78° 4′ E., and 3,238 feet in height. It is a conspicuous object in the Salem landscape, with its hog-backed shape and its serrated ridges, and is widely known for its rich stores of magnetic iron ore. There are five separate beds of this, and the supply is almost inexhaustible. It often contains as much as 40 per cent. of iron. Vast quantities of the ore of these beds have rolled down the sides of the hill, especially to the south, where not only does the extensive talus consist mainly of it, but the fields for one or two miles from the hill are thickly strewn with rolled fragments of all sizes. The Kanjamalai iron was the source of supply of the ill-fated Porto Novo Iron Company, which erected blast furnaces at PORTO NOVO in the early years of the nineteenth century, but eventually collapsed. Since then no mining has been done here. Two firms hold licences to prospect in the hill, but no definite steps have yet been taken to extract any ore. At the foot of the hill is the famous temple of Siddharkovil.

Kanjarda.—Petty State in KĀTHIĀWĀR, Bombay.

Kānkānhalli Tāluk.—Southern *tāluk* of Bangalore District, Mysore, lying between 12° 15′ and 12° 49′ N. and 77° 14′ and 77° 38′ E., with an area of 623 square miles. The population rose from 71,868 in 1891 to 83,557 in 1901. The *tāluk* contains one town, KĀNKĀNHALLI (population, 5,588), the head-quarters; and 252 villages. The land revenue demand in 1903–4 was Rs. 1,02,000. The Arkāvati enters the *tāluk* on the north-west, and flows into the Cauvery, which forms the southern boundary. The south is occupied by high hills and forests, with extensive grazing-grounds. *Rāgi*, *avare*, and castor-oil are the chief crops of the open parts. Tamarinds, coco-nuts, and mulberry are grown along the streams. The soils are generally shallow and rocky.

Kānkānhalli Town.—Head-quarters of the *tāluk* of the same name in Bangalore District, Mysore, situated on the Arkāvati river, in 12° 33′ N. and 77° 26′ E., 36 miles south of Bangalore city. Population (1901), 5,588. The fort was built by Jagadeva Rāya of Channa

patna about 1577, and taken by the Mysore troops in 1630. Tipū twice destroyed the town to prevent its giving shelter to the British army marching on Seringapatam. The name is properly Kānakāra-nahalli, the village of the Kānakāra or 'landed proprietor.' To this family in 1648 was granted Channarāyapatna (Hassan District). The municipality dates from 1870. The receipts and expenditure during the ten years ending 1901 averaged Rs. 1,800 and Rs. 1,900. In 1903-4 they were Rs. 2,200 and Rs. 2,300.

Kānker.—Feudatory State in the Central Provinces, lying between 20° 6′ and 20° 34′ N. and 80° 41′ and 81° 48′ E., with an area of 1,429 square miles. It is bounded on the north by Drug and Raipur Districts; on the east by Raipur; on the south by the State of Bastar; and on the west by Chānda. The head-quarters are at Kānker, a village with 3,906 inhabitants, situated on a small stream called the Dudh, 39 miles by road from Dhamtarī station on the Raipur-Dhamtarī branch of the Bengal-Nāgpur Railway. Most of the State consists of hill and forest country; and except in the eastern portion along the valley of the Mahānadī there are no extensive tracts of plain land, while the soil of the valley itself is interspersed with outcrops of rock and scattered boulders. The Mahānadī enters Kānker at a short distance from its source, and flows through the eastern part of the State, receiving the waters of numerous small streams from the hills. Gneiss of a granitoid character is the prevailing rock formation. The principal forest trees are teak, *sāl* (*Shorea robusta*), *sirsā* (*Dalbergia latifolia*), and *bījāsāl* (*Pterocarpus Marsupium*). The ruling chief belongs to a very old Rājput family, and according to tradition his ancestors were raised to the throne by a vote of the people. During the supremacy of the Haihaivansi dynasty of Chhattīsgarh, the chief of Kānker is shown in an old record as in subsidiary alliance with the ruling power, and as having held the Dhamtarī tract within their territories. Under the Marāthās the Kānker State was held on condition of furnishing a military contingent 500 strong whenever required. In 1809 the chief was deprived of Kānker, but was restored to it in 1818 by the British Resident administering the Nāgpur territories, on payment of a tribute of Rs. 500. This was remitted in 1823 on the resumption by the Government of certain manorial dues, and since then no tribute has been paid. The present chief, Lāl Kamal Deo, was installed in 1904. The population in 1901 was 103,536, having increased by 26 per cent. during the previous decade. Gonds form more than half the total, and there are also a number of Halbās. Chhattīsgarhī and Gondī are the languages spoken.

The soil is for the most part light and sandy. Nearly 300 square miles, or 21 per cent. of the total area, were occupied for cultivation in 1904, and 281 square miles were actually under crop. Rice covers

nearly 130 square miles and *kodon* 32. The cultivated area has increased largely in recent years. There are 21 tanks which irrigate about 350 acres. The recent opening of a branch line to Dhamtarī has brought the considerable forests of the State within reach of the railway, and a large income is obtained from sales of timber. About 333 square miles are tree forest. The State contains 51 miles of metalled and 75 miles of unmetalled roads; the principal metalled road is from Dhamtarī to Kānker.

The total revenue in 1904 was Rs. 1,56,000, the principal heads of receipt being land revenue (Rs. 67,000), forests (Rs. 60,000), and excise (Rs. 20,000). The incidence of land revenue is less than 4 annas per acre of cropped area. The principal items of expenditure were Rs. 45,000 for the maintenance of the ruling family, Rs. 13,000 on general administration, Rs. 8,300 on police, Rs. 4,200 on education, and Rs. 3,400 on land revenue settlement. During twelve years since 1892-3 a total of Rs. 1,14.000 has been expended on public works. under the supervision of the Engineer of the Chhattīsgarh States division. Besides the roads already mentioned, an office building, jail, schools, post office, and *sarai* or native travellers' resthouse have been constructed at Kānker. The State supports one vernacular middle and 16 primary schools, with a total of 1,316 pupils. Only 904 persons were returned as able to read and write in 1901, the proportion of male literates being 1·7 per cent. of the population. A dispensary is maintained at Kānker. A Political Agent under the supervision of the Commissioner, Chhattīsgarh Division, controls the relations of the State with Government.

Kānkrej (or Thara).—A collection of petty estates under the Pālanpur Agency, Bombay, with a total area of 810 square miles. They are bounded on the north by Pālanpur; on the east by a subdivision of Baroda territory; on the south by Rādhanpur State; and on the west by the Pālanpur estates of Diodār. The population in 1901 was 38,829, compared with 38,842 in 1891. The first connexion of the British Government with the States of Kānkrej dates from the formation in 1819-20 of the Mahī Kāntha Agency, in which they were included till 1844, when, on account of their nearness to Pālanpur, they were transferred to the Pālanpur Agency. Kānkrej comprises 26 different estates, the chief of which are Thara, Un, and Kamboi, most of them held by Rājputs who have intermarried with Kolī women. The largest and most important estate is Thara, whose chiefs are Vāghela Kolīs by caste; and these, by refusing to eat with their brethren, have been allowed to intermarry with Rājput houses, and are now generally admitted as belonging to the Rājput tribe. The principal village in Kānkrej is Thara, 5 miles north of which is Kākar, the ancient capital of the State, with some ruined temples.

Kānkroli.—Chief town of an estate of the same name in the State of Udaipur, Rājputāna, situated in 25° 4′ N. and 73° 53′ E., about 36 miles north-by-north-east of Udaipur city. The town contains (1901) 3,053 inhabitants, and is the head-quarters of a Gosain who is a descendant of Vallabhāchārya. The estate, which consists of 21 villages situated in different parts of Mewār, is held by him as a *muafi* or free grant from the Mahārānā. To the north of the town lies the Rāj Samand, a fine sheet of water 3 miles long by 1½ miles broad, with an area of about 3 square miles. The lake is formed by a dam built at the south-western end by Rānā Rāj Singh between 1662 and 1676. Its construction served to alleviate the sufferings of a starving population, and it is the oldest known famine relief work in Rājputāna. It is said to have cost about 70 lakhs. The dam forms an irregular segment of a circle nearly 3 miles long; the northern portion, which lies between two hills, is about 200 yards long and 70 yards broad, and is entirely faced with white marble from the adjacent quarries. Along the front, a flight of steps descends to the water's edge, while jutting out into the lake are three marble pavilions, all richly sculptured in different patterns. At one end of the embankment is the temple of Dwārka Dhīsh, one of the seven forms of Krishna; and the image now worshipped there is said to be the identical one brought to Rājputāna in 1669 by the descendants of Vallabhāchārya when they left Muttra from fear of Aurangzeb. On a hill to the north-east are the remains of a large Jain temple, said to have been built by Rānā Rāj Singh's minister, Dayāl Sāh Its spire was partly destroyed by the Marāthās and replaced by a round tower, but it is still a picturesque ruin.

[J. Fergusson, *Picturesque Illustrations of Ancient Architecture* (1841).]

Kanksiāli.—Petty State in Kāthiāwār, Bombay.

Kannad.—North-western *tāluk* of Aurangābād District, Hyderābād State, with an area of 769 square miles. The population in 1901, including *jāgīrs*, was 88,901, compared with 82,887 in 1891. The *tāluk* contains 236 villages, of which 68 are *jāgīr*, and Kannad (population, 3,609) is the head-quarters. The land revenue in 1901 was 1·9 lakhs. From the Gaotāla hill, 7 miles north of Kannad, the Gaotāla *ghāt* descends into Khāndesh. The Contingent troops, sent in pursuit of the Bhīls in 1830, were encamped on this hill for six months.

Kānor.—Chief town of an estate of the same name in the State of Udaipur, Rājputāna, situated in 24° 26′ N. and 74° 16′ E., about 38 miles east-by-south-east of Udaipur city. Population (1901), 4,300. The Kānor estate, which consists of 110 villages, is held by one of the first-class nobles of Mewār, who is termed Rāwat and belongs to the Sārangdevot family of the Sesodia Rājputs. The income is about Rs. 32,000, and a tribute of Rs. 2,500 is paid to the Darbār.

Kanora.—Petty State in REWĀ KĀNTHA, Bombay.

Kanpār Ishwaria.—Petty State in KĀTHIĀWĀR, Bombay.

Kānpur.—Principal village in Narsinghpur, one of the Orissa Tributary States, Bengal, situated in 20° 24′ N. and 85° 11′ E., on the Mahānadī. Population (1901), 1,727. Kānpur has a bi-weekly market, and a trade in grain, cotton, oilseeds, and sugar-cane.

Kāntanagar.—Village in the Thākurgaon subdivision of Dinājpur District, Eastern Bengal and Assam, situated in 25° 48′ N. and 88° 39′ E. It is the site of a fine eighteenth-century Hindu temple to Kāntajī (Vishnu), the family god of the Rājā of Dinājpur. The foundation was laid in 1704, but the finest portion was not completed till 1772; the temple was badly damaged in the earthquake of 1897. The place is much resorted to, and an annual fair is held here at the time of the Rāsh festival in October–November.

[Martin, *Eastern India*, vol. ii, p. 628.]

Kānth.—Town in the Amroha *tahsīl* of Morādābād District, United Provinces, situated in 29° 3′ N. and 78° 37′ E., 17 miles north-west of Morādābād city. Population (1901), 7,092. The town contains a branch of the American Methodist Mission. It is administered under Act XX of 1856, with an income of about Rs. 1,600. There is a small local industry in cotton cloth and sugar. The middle school has 146 pupils.

Kānthāria.—Petty State in KATHIĀWĀR, Bombay.

Kānthi.—Subdivision and village in Midnapore District, Bengal. *See* CONTAI.

Kantigale.—Another name of ZINGKALING HKAMTI, a Shan State in the Upper Chindwin District of Burma.

Kantigyi.—Collection of Shan States north of the Myitkyinā District of Upper Burma. *See* HKAMTI LONG.

Kantilo.—Village in Khandparā, one of the Orissa Tributary States, Bengal, situated in 20° 22′ N. and 85° 12′ E., on the right bank of the Mahānadī. Population (1901), 4,719. It is situated on the Cuttack-Sonpur road, and is 7 miles from the Rājā's residence. It is a considerable seat of trade, but has somewhat declined in importance since the opening of the Bengal-Nāgpur Railway. The manufacture of brass-ware is largely carried on.

Kānu.—Village in Burdwān District, Bengal. *See* KHĀNA.

Kapadvanj Tāluka.—Northern *tāluka* of Kaira District, Bombay, lying between 22° 52′ and 23° 7′ N. and 72° 50′ and 73° 19′ E., with an area of 279 square miles. The *tāluka* is in shape an oblong, 15 miles long and 30 miles broad, and contains one town, KAPADVANJ (population, 15,405), the head-quarters, and 87 villages. The population in 1901 was 75,258, compared with 101,527 in 1891. The density is only 270 persons per square mile, the District average

being 449. The land revenue and cesses in 1903-4 amounted to 1·8 lakhs. Towards the south and west, Kapadvanj is a rich and well-cultivated plain clothed with trees. The Mohar and the Vātrak flow through it, but these streams are of little use for irrigation, being highly charged with soda. The water-supply generally is scanty. *Bājra*, rice, *jowār*, and maize are the staple crops.

Kapadvanj Town.—Head-quarters of the *tāluka* of the same name in Kaira District, Bombay, situated in 23° 1′ N. and 73° 5′ E. Population (1901), 15,405. Near the walls, which protect the place, are the ruins of an ancient town, the scene of some hard-fought battles during the Marāthā ascendancy. It was exchanged for Bijāpur in 1817. Kapadvanj derives its importance from lying on one of the main trade routes between Central India and the coast. The principal objects of interest in the town are a fine reservoir with a well in the centre, and an arch in the Chālukya (1000–1300) style of architecture. A sacred pool, with traditional healing qualities, is inside the well. South of the pool is an underground temple of Mahādeo, which was discovered in A.D. 1044, if popular tradition is to be relied on. The idol appears to have been placed underground to protect it from the iconoclastic zeal of early Musalmān invaders. Of modern buildings that of most note is a Jain temple, the interior of which is richly ornamented with marble pillars, and has a marble pavement inlaid with delicacy and taste. The municipality was established in 1863. The average receipts for the decade ending 1901 were Rs. 15,000; and the income in 1903-4 was Rs. 16,000, chiefly derived from a house and land tax. Precious stones, such as agate and onyx, are found in large quantities in the bed of the Mohar, a rocky stream half a mile north of the town. Manufactures are soap, glass, and leathern butter-jars. The most important article of trade is grain. Besides supplying a considerable local demand, Kapadvanj goods are exported to the Pānch Mahāls, Bālāsinor territory, and Central India. The town contains a Sub-Judge's court, a dispensary, and 11 schools (9 for boys, including an English school with 52 pupils, and 2 for girls), which are attended by 804 and 258 pupils respectively.

Kapilavastu.—The city where Buddha was born, and the ancient capital of the Sākyas, from whose royal house he was descended. For many years it was believed that Kapilavastu was on the site now occupied by Bhuilā Dīh in the Bastī District of the United Provinces. A re-examination of the narratives of the Chinese pilgrims, and the identification of other sites, had already caused doubts as to the correctness of this view, when, in 1895, an inscription was found on a pillar at Niglīvā, in the Nepāl *tarai*, 31 miles north-west of the Uska Bāzār railway station. This inscription recorded a visit by Asoka and repairs to the *stūpa* of Konāgāmana. The latter building is described

in Buddhist literature as close to Kapilavastu, and it was therefore thought that the site had been definitely fixed. Further investigation showed, however, that no remains of the *stūpa* existed in the neighbourhood, and that the pillar itself was not in its original position. In 1896 another pillar was found a mile north of the village of Paderia in Nepāl, and two miles north of the Nepālese *tahsīl* station at Bhagwānpur. An inscription showed that it had been raised by Asoka at the Lumbini garden to mark the birthplace of Buddha. The sacred books of the Buddhists state that Buddha was born at the Lumbini garden close to Kapilavastu, and the place is still called Rummin-dei, while a Hindu temple hard by contains a representation of the miraculous birth of Buddha. The pillar itself is split down the middle, thus agreeing with the statement of Hiuen Tsiang, who described it in the seventh century A.D., as having been struck by lightning. The neighbourhood, in which there are many mounds and remains of buildings, has not been fully explored, so that the exact site of Kapilavastu is not known, but it must be within a few miles of Paderia. The accounts of the Chinese pilgrims disagree; and it has been suggested that the sites shown to them were not the same, and that Fa Hian believed Kapilavastu to be represented by Piprahwa in Bastī District, 9 miles south-west of Rummin dei, while Hiuen Tsiang was taken to a different place, Tilaura Kot, 14 miles north-west of the garden. The locality was almost deserted when they visited it.

[See *Report on the Antiquities in the Tarai* by the late P. C. Mukherji, with prefatory note by V. A. Smith (Calcutta, 1901).]

Kapili.—River of Assam, which rises on the northern slopes of the Jaintiā Hills, Eastern Bengal and Assam, and, after a course of 103 miles, falls into the Kālang at Jāgi, near the western end of Nowgong District. It receives the Doiāng, which carries off the whole of the drainage of the extreme north of Cāchār District, and, in addition to numerous other minor streams, the Jamunā, Barpāni, and Umiām or Kiling. A branch channel connects it with the Kalang at Raha, 20 miles east of its main junction with that river. In the rainy season the Kapili is navigable by boats of 4 tons burden up to Panimur, the place at which it leaves the hills; but progress beyond this spot is checked by a barrier of rocks, over which the river is precipitated in a fine waterfall. During the dry season boats of this size cannot proceed farther than Kāmpur. In the hills the Kapili flows along a rocky channel; in the plains its course is through low-lying land, and its banks are for the most part covered with dense jungle grass. Most of the hill trade, which consists of cotton, lac, and *eri* silk, comes down the Kapili to Chāparmukh, and is dispatched thence by rail or country boat to Gauhāti. The Assam-Bengal Railway crosses the river on a brick bridge 500 yards in length, but this is largely in

excess of the actual breadth of the channel at most seasons of the year. The principal places on its banks are Chāparmukh, Jamunāmukh, Khārikhāna, and Dharamtul. The floods of this river do considerable damage. Efforts have been made by the villagers to protect their lands, by constructing an embankment for about 7 miles along the southern bank from Deonarikoli to Magurgaon in the Sahari *mauza*.

Kapilmuni.—Village in the head-quarters subdivision of Khulnā District, Bengal, situated in 22° 42′ N. and 89° 19′ E., on the Kabadak. Population (1901), 362. Kapilmuni is connected by steamer service with Jhingergācha station on the Eastern Bengal State Railway, and possesses a bi weekly market. A large annual fair, held in March in honour of the goddess Kapileswarī, is attended by 6,000 or 7,000 persons.

Kapini.—River in Mysore District, Mysore. *See* KABBANI.

Kāpsi.—Estate in KOLHĀPUR STATE, Bombay.

Kapūrthala State.—Native State in the Punjab, under the political control of the Commissioner, Jullundur Division, lying between 31° 9′ and 31° 44′ N. and 75° 3′ and 75° 59′ E., with an area of 652[1] square miles. The population in 1901 was 314,341, giving an average density of 499 persons per square mile. The State consists of three detached pieces of territory, the principal of which is an irregular strip of country on the east bank of the Beās, varying in breadth from 7 to 20 miles, and measuring in all 510 square miles. It stretches from the borders of Hoshiārpur District on the north to the Sutlej on the south, while on the east it is bounded by Jullundur District. This portion of the State lies, for the most part, in the Beās lowlands, and is roughly bisected from north to south by the White or Western Bein. The Phagwāra *tahsīl*, which measures 118 square miles, is enclosed by Jullundur District on all sides except the north-east, where it marches with Hoshiārpur. The rest of the territory consists of a small block of villages, known as the Bhunga *ilāka*, which forms an island in Hoshiārpur District. Both these tracts lie in the great plain of the Doāb, which contains some of the best land in the Province, and are traversed by the torrents which issue from the Siwāliks, the most important of which, known as the Black or Eastern Bein, passes through the north of the Phagwāra *tahsīl*. The State lies entirely in the alluvium, and the flora and fauna resemble those of the neighbouring Districts. The climate is generally good, except in the lowlands during the rainy season. The rainfall is heaviest in Bholath and lightest in the Sultānpur *tahsīl*. The average is much the same as in Jullundur.

Physical aspects.

[1] These figures do not agree with the area given in Table III of the article on the PUNJAB, and in the table on p. 410 of this article, which is the area as returned in 1901, the year of the latest Census. They are taken from more recent returns. The density is taken from the *Census Report* of 1901.

The ancestors of the chief of Kapūrthala at one time held possessions both in the cis- and trans-Sutlej and also in the Bāri Doāb. In the latter lies the village of Ahlū, whence the family springs, and from which it takes the name of Ahlūwālia. The scattered possessions in the Bāri Doāb were gained by the sword in 1780, and were the first acquisitions made by Sardār Jassa Singh, the founder of the family. Of the cis-Sutlej possessions, some were conquered by Sardār Jassa Singh, and others were granted to him by Mahārājā Ranjīt Singh prior to September, 1808. By a treaty made in 1809, the Sardār of Kapūrthala pledged himself to furnish supplies to British troops moving through or cantoned in his cis-Sutlej territory; and by declaration in 1809 he was bound to join the British standard with his followers during war. In 1826 the Sardār, Fateh Singh, fled to his cis-Sutlej territory for the protection of the British Government against the aggressions of Mahārājā Ranjīt Singh. This was accorded, but in the first Sikh War the Kapūrthala troops fought against the British at Alīwāl; and, in consequence of these hostilities and of the failure of the chief, Sardār Nihāl Singh, son of Sardār Fateh Singh, to furnish supplies from his estates south of the Sutlej to the British army, these estates were confiscated. When the Jullundur Doāb came under the dominion of the British Government in 1846, the estates north of the Sutlej were maintained in the independent possession of the Ahlūwālia chieftain, conditional on his paying a commutation in cash for the service engagements by which he had previously been bound to Ranjit Singh. The Bāri Doāb estates have been released to the head of the house in perpetuity, the civil and police jurisdiction remaining in the hands of the British authorities. In 1849 Sardār Nihāl Singh was created a Rājā. He died in September, 1852, and was succeeded by his son, Randhīr Singh. During the Mutiny in 1857 the forces of Randhir Singh, who never hesitated or wavered in his loyalty, strengthened our hold upon the Jullundur Doāb; and afterwards, in 1858, the chief led a contingent to Oudh which did good service in the field. He was well rewarded; and among other concessions obtained the grant in perpetuity of the estates of Baundī and Ikaunā (in Bahrāich District) and Bhitaulī (in Bāra Banki District) in Oudh, which have an area of 700 square miles, and yield at present a gross revenue of about 13·5 lakhs. Of this, 3·4 lakhs is paid to Government as land revenue and cesses. In these estates the Rājā exercises no ruling powers, though in Oudh he is, to mark his superiority over the ordinary *tālukdārs*, addressed as Rājā-i-Rājagān. This title was made applicable to the Rājā in Oudh only, and not in the Punjab. Rājā Randhīr Singh died in 1870, and was succeeded by his son, Rāja Kharrak Singh. The present Rājā, Jagatjīt Singh, son of Kharrak Singh, succeeded in September, 1877, attaining his majority

History.

in 1890. The chiefs of Kapūrthala are Sikhs. Sardār Jassa Singh was always known as Jassa Kalāl; but the family claim descent from Rānā Kapūr, a semi-mythical member of the Rājput house of Jaisalmer, who is said to have left his home and founded Kapūrthala 900 years ago. The Rājā has the right of adoption and is entitled to a salute of 11 guns.

SULTĀNPUR is built on a very ancient site, but the only architectural remains of interest are two bridges and a *sarai*. The *sarai* and one of the bridges are attributed to Jahāngīr, while the other bridge is said to have been built by Aurangzeb. The two princes, Dārā Shikoh and Aurangzeb, are said to have lived for some time in the *sarai* and to have received instruction there from Akhund Abdul Latīf, an inhabitant of the place.

Population.

The State contains 603 villages and three towns: KAPŪRTHALA, SULTĀNPUR, and PHAGWĀRA. There are five *tahsīls*: namely, KAPŪRTHALA, DHILWĀN, BHOLATH, PHAGWĀRA, and SULTĀNPUR, each with its head-quarters at the place from which it is named. The population at the last three enumerations was: (1881) 252,617, (1891) 299,690, and (1901) 314,351.

The main statistics of population in 1901 are given in the following table:—

Tahsīl.	Area in square miles.	Number of Towns.	Number of Villages.	Population.	Population per square mile.	Percentage of variation in population between 1891 and 1901.	Number of persons able to read and write.
Kapūrthala	121	1	110	57,314	474	+ 8.2	2,708
Dhilwān	110	...	103	48,985	444	+ 4.1	1,202
Bholath	127	...	126	62,270	490	+ 0.7	1,971
Phagwāra	118	1	88	69,837	592	+ 9.2	2,846
Sultānpur	176	1	176	75,945	432	+ 1.0	1,904
State total	630	3	603	314,351	499	+ 4.6	10,631

NOTE.—The figures for the areas of *tahsils* are taken from revenue returns. The total State area is that given in the *Census Report*

About 57 per cent. of the population are Muhammadans, 30 per cent. Hindus, and only 13 per cent. Sikhs. The percentage of Muhammadans is considerably higher than in the neighbouring Districts and States. In density of population Kapūrthala stands first among the Punjab States and is surpassed by only five of the British Districts. Punjābi is the language of practically all the inhabitants. Among the Muhammadans the most numerous castes are Arains (51,000), Rājputs (24,000), and Jats (14,000). Among Hindus, Jats number 15,000, and Brāhmans 10,000, while the principal menial castes are Chūhrās (sweepers, 21,000) and Chamārs (leather-workers, 12,000). Sikhs are most numerous among the Jats (20,000) and the Kambohs (12,000). Nearly 68 per cent. of the population are dependent on agriculture.

The proportion is higher than in any Punjab District in the plains except Hissār, and is slightly above the average for the States of the Province. Most of the trade is in the hands of Khattrīs, who number 7,000. Christians number only 39; there is no mission in the State.

Agriculture.

The greater portion of the Sultānpur, Dhilwān, and Bholath *tahsīls* lies in the lowlands (Bet) of the Beās. Wells are used to irrigate the lands in the Bet, except in years of excessive floods. In the sandy tracts known as the Dona there are irrigation wells. There are a few strips of land where the soil is too saline for cultivation. The Kapūrthala *tahsīl*, as it includes only a small portion of the Bet, is the least fertile, and most of it lies in the Dona tracts. There are many wells in the *tahsīl*, but owing to the insufficiency of rainfall and the nature of the soil, the area irrigated by each well is small. The other portions of the State are fertile, and receive ample irrigation either from hill torrents or from wells.

The main statistics of cultivation in 1903-4 are shown in the following table, in square miles:—

Tahsīl.	Total area.	Cultivated.	Irrigated	Cultivable waste.
Kapūrthala . .	121	92	12	16
Dhilwān	110	55	17	17
Bholath . .	127	78	21	10
Phagwāra . .	118	69	18	26
Sultānpur . . .	176	110	19	55
Total	652	404	87	124

The tenures of the State present no peculiarities. A few villages are owned by the Rājā, but most are held by agricultural communities. The staple agricultural products, with the area in square miles under each in 1903-4, are as follows: wheat (200), gram (59), maize (47), cotton (9), and sugar-cane (15).

The system of State advances to agriculturists was established in 1876 by Mr. (now Sir C.) Rivaz, the Superintendent of the State, and the total amount advanced during the ten years ending 1903-4 was Rs. 2,13,000.

The cattle bred locally are of an inferior type and the best animals are imported. Efforts are being made to improve the local breed, and a number of Hissār bulls have been introduced. The horses, like those in other parts of the Jullundur Doāb, are small; but six stallions, the property of the State, are located at convenient centres, with the object of improving the breed. Mule-breeding has recently been introduced, and the State maintains 6 donkey stallions. A horse and cattle fair is held every year at Kapūrthala town.

The area irrigated in 1903–4 from wells was 87 square miles; that inundated from the overflow of the Beās and the Western Bein was 68 square miles. In the lowlands, the only *kharīf* crops that can be grown are sugar-cane and rice. In the *rabi* harvest, the wheat and gram are usually excellent. The floods from the hill torrents are often held up by dams and spread over the fields for the irrigation of sugar-cane, rice, &c., by means of small channels. Sometimes the water is raised by means of *jhalārs*, worked in the same way as Persian wheels. In most parts of the State the wells are masonry, but along the rivers or hill torrents unbricked wells are dug for temporary use, especially in seasons of drought. In a year of light rainfall, such as 1899–1900, the area watered by wells may rise as high as 109 square miles. The area irrigated by a single masonry well varies from 5 acres in the sandy tracts of the Kapūrthala *tahsīl* to 7 acres in the Bet. The total number of masonry wells in 1903–4 was 9,394.

There are five 'reserved' forests in the State, covering an area of about 42 square miles. They are kept chiefly as game preserves, and no revenue is derived from them. The grass growing in them is used as fodder for the transport mules, State horses, and elephants.

The State lies wholly in the alluvium, and the only mineral product of importance is *kankar*, which merely supplies local requirements.

Sultānpur is famous for hand-painted cloths, which are made up into quilts, bed sheets, *jāzams* (floorcloth), curtains, &c., and in the form of *jāzams*, curtains, and tablecloths are exported to Europe. Phagwāra is noted for its metal-work.

Trade and communications.

The State exports wheat, cotton, tobacco, and sugar in large quantities. Phagwāra has a large and increasing trade in grain; and as the grain market is free from octroi, it has attracted a good deal of the trade which formerly went to Jullundur and Ludhiāna.

The main line of the North-Western Railway passes through the Phagwāra, Kapūrthala, and Dhilwan *tahsīls*, but Phagwāra is the only town on the railway. The grand trunk road runs parallel to the railway and at a short distance from it. It is maintained by the British Government. The total length of the metalled roads maintained by the State is about 25 miles, and of unmetalled roads 35 miles. The most important metalled roads are those connecting the capital with the railway at Kartārpur (7 miles) and at Jullundur (11 miles). The State maintains half of each of these roads. The British Post Office system extends to the State, which has no concern with the postal income or expenditure.

Cash rents prevail, and they are fixed according to the quality of the area leased. The rates vary from a minimum of 6 annas per acre for unirrigated land in the Kapūrthala *tahsīl* to a maximum of Rs. 9 per acre for land supplied by wells in the same *tahsīl*.

Tradition still keeps alive the memory of the famines of 1806 and 1865, when relief measures were undertaken by the State. The famine in 1899-1900 was less severe, but on that occasion also the sufferers were relieved by the distribution of grain and of Rs. 1,323 in cash, though it was not found necessary to start relief works.

Famine.

The Commissioner of the Jullundur Division is the Agent to the Lieutenant-Governor for Kapūrthala. The Rājā has full powers. The State pays Rs. 1,31,000 as tribute to the British Government. The chief secretary (*Mushīr-i-Azam*) deals with all papers pertaining to State affairs, which are to be laid before the Rājā for orders, and conducts all correspondence with Government. He is also associated with the two other officials forming the State Council in carrying out the central administration under His Highness's control. For the purpose of general local administration the State is divided into five *tahsīls*--KAPŪRTHALA, DHILWĀN, BHOLATH, PHAGWĀRA, and SULTĀNPUR.

Administration.

The Indian Penal Code and the Procedure Codes are in force in the State, with certain modifications. Legislative measures are prepared by the State Council for the sanction of the Rājā. The main provisions of the Punjab Revenue Law are also generally followed in the State.

Each *tahsīl* is in charge of a *tahsīldār*, who is invested with powers to dispose of rent, revenue, and civil cases up to the limit of Rs. 300, and also exercises magisterial powers corresponding to those of a second-class magistrate in British Districts. The appeals in rent and revenue cases (judicial and executive side) against the orders of the *tahsīldārs* are heard by the Collector, who also decides cases (revenue and judicial) exceeding Rs. 300. There is a Revenue Judicial Assistant who disposes of cases (revenue and judicial) exceeding Rs. 300 in the two *tahsīls* of Dhilwān and Bholath. He also hears appeals against the orders of the *tahsīldārs* in those *tahsīls*. Appeals against the orders of the Collector and the Revenue Judicial Assistant are preferred to the *Mushīr-i-Māl*, whose orders are appealed to the State Council, which is the final appellate court in the State. Appeals in civil and criminal suits against the orders of the *tahsīldārs* are heard by the magistrate exercising the powers of a District Magistrate. He is assisted as a court of original jurisdiction by an assistant magistrate having the powers of a first-class magistrate. Appeals against the orders of the magistrate and assistant magistrate lie in the appellate court of the Civil and Criminal Judge, appeals from whose decisions are heard by the State Council. In murder cases the Rājā passes sentence of death or imprisonment for life.

The old system under which the revenue was realized in kind was

not done away with until 1865. The share of the State was two-fifths of the entire produce. On some crops, such as sugar-cane, &c., the State used to take its share in money. The revenue was actually collected by the State officials in kind, and stored up in the State granary and sold as required.

The land revenue at the date of British annexation of the Punjab was 5·7 lakhs. In 1865 the first settlement of the State was completed, and the demand was fixed at 7 lakhs. In 1877, during the minority of the present Rājā, the assessment was revised, and the demand raised to 7·7 lakhs. A further revision took place in 1900, when the revenue was raised to 8·7 lakhs. On this occasion the work was carried out entirely by the State officials. During the settlement of 1865, the first revenue survey was undertaken. It was completed in 1868. The rates for unirrigated land vary from 8 annas to Rs. 4 per acre, and for irrigated land from Rs. 3 to Rs. 9 per acre. The average rate for unirrigated land is Rs. 2–7, and for irrigated land Rs. 6–8 per acre.

Two of the State preserves, with an area of 2,200 acres, have been brought under cultivation. Occupancy rights in the greater part of one of these areas have been given to the cultivators on payment of a *nazarāna* at the rates of Rs. 30, Rs. 37–8, or Rs. 45 per acre, according to the quality of the soil; while the remaining portion is given out to tenants-at-will on payment of a *nazarāna* of Rs. 15 per acre. The total *nazarāna* realized in 1903–4 from the tenants was Rs. 76,000.

The following table shows the revenue of the State in recent years, in thousands of rupees:—

	1880-1.	1890-1.	1900-1.	1903-4.
Land revenue . .	7,38	7,33	7,65	8,39
Total revenue . .	19,08	21,45	24,38	27,17

Apart from land revenue, the main items of income in 1903–4 were: Oudh estates (10·7 lakhs), stamps (2·3 lakhs), cesses (1·7 lakhs), and *jāgīrs* in the Districts of Lahore and Amritsar (0·4 lakh). The total expenditure in 1903–4 was 27·8 lakhs. The main items were: civil service, including tribute (7·7 lakhs), household (6·4), Oudh estates (5·4), public works (4·9), and army (1·9).

Spirit is distilled by licensed contractors in the State distillery. The rights of manufacture and vend are sold by public auction. A fixed charge of Rs. 25 is levied from each contractor for the use of the distillery, and a still-head duty of Rs. 4 per gallon is imposed on all spirit removed for sale. The receipts in 1903–4 were Rs. 21,000. Mālwā opium is obtained by the State from the British Government at the reduced duty of Rs. 280 per chest, up to a maximum of 8 chests annually. The duty so paid is refunded, with the object of securing

the co-operation of the State officials in the suppression of smuggling. The opium is retailed to the contractors at the rates prevalent in the neighbouring British Districts. Licences for the sale of hemp drugs are auctioned. *Charas* is imported from the Punjab and *bhang* from the United Provinces. The profit on opium and drugs in 1903-4 amounted to Rs. 11,000.

The towns of Kapurthala and Phagwāra have been constituted municipalities. The nomination of the members requires the sanction of the Rājā. The municipality of Kapūrthala was established in 1896 and that of Phagwāra in 1904. There is a local rate committee for the State, which was established in 1901-2, and is presided over by the *Mushīr-i-Māl*. The income in 1903-4 was Rs. 15,000, derived mainly from a rate of Rs. 1-9 per cent. on the land revenue. The expenditure is devoted to unmetalled roads and other works of utility for the villages.

The Public Works department was first organized in 1860, and is under the charge of the State Engineer. The principal public works are the State offices, infantry and cavalry barracks, the college, hospitals, Villa Buona Vista, the great temple, and the Victoria *sarai*. The State offices cost 4·9 lakhs. A new palace is under construction.

The State maintains a battalion of Imperial Service Infantry at a cost of 1·2 lakhs; and the local troops consist of 66 cavalry, 248 infantry, 21 gunners with 8 serviceable guns, and a mounted body-guard of 20.

The police force, which is under the control of the Inspector-General, includes 3 inspectors, 1 court inspector, 5 deputy-inspectors, 15 sergeants, and 272 constables. The village *chaukīdārs* number 243. There are six police stations, one in charge of an inspector and five in charge of deputy-inspectors. Besides the police stations, there are fifteen outposts. The jail at Kapūrthala has accommodation for 105 prisoners. Jail industries include carpet and *darī* making.

Three per cent of the population (5 males and 0·3 females) were returned as literate in 1901. The proportion is lower than in the adjoining British Districts and the States of Nābha and Farīdkot, but higher than in Patiāla and Jīnd. The number of pupils under instruction was 1,815 in 1880-1, 1,762 in 1890-1, 2,265 in 1900-1, and 2,547 in 1903-4. In the last year there were 27 primary and 5 secondary schools, and an Arts college at Kapūrthala. The number of girls in the schools was 205. All the primary and secondary schools, except those situated in the capital, are controlled by the director of public instruction, but the principal of the college is responsible for the schools at the capital. The course of instruction is the same as in British territory. The total expenditure on education in 1903-4 was Rs. 28,000.

The three hospitals in the State (the Randhīr Hospital, the Victoria Jubilee Female Hospital, and the Military Hospital) contain accommo-

dation for 51 in-patients. There are also 4 dispensaries. In 1903 the number of cases treated was 71,642, of whom 984 were in-patients, and 1,991 operations were performed. The hospitals and dispensaries are in charge of the Chief Medical Officer. In 1904 the total number of persons successfully vaccinated was 5,739, or 18·2 per 1,000 of the population. Vaccination is not compulsory.

[*State Gazetteer* (in press); L. H. Griffin, *The Rājās of the Punjab* (second edition, 1873).]

Kapūrthala Tahsīl.—*Tahsīl* of the Kapūrthala State, Punjab, lying between 31° 22′ and 31° 35′ N. and 75° 17′ and 75° 35′ E., with an area of 121 square miles. The population increased from 52,968 in 1891 to 57,314 in 1901. It contains one town, KAPŪRTHALA (population, 18,519), and 110 villages. The land revenue and cesses in 1903-4 amounted to 1·7 lakhs. The *tahsīl* is the least fertile in the State. Only a small portion of it lies in the Beās lowlands; and the rest consists of a sandy plain beyond the reach of the floods, where the cultivation depends on irrigation from wells.

Kapūrthala Town.—Capital of the Kapūrthala State, Punjab, situated in 31° 23′ N. and 75° 25′ E., 8 miles east of the Beās, and 11 from Jullundur. Population (1901), 18,519. It is said to have been founded in the eleventh century by Rānā Kapūr of the Rajput ruling family of Jaisalmer, from whom the present Rājā of Kapūrthala claims descent. In 1780 it was wrested by Sardār Jassa Singh from the Muhammadan chieftain who had seized the town and its dependent villages on the break-up of the Mughal empire, and has since been the capital of the State. It contains the Rājā's palace and many other handsome edifices. The town is administered as a municipality, the income of which in 1903–4 was Rs. 13,000, chiefly derived from octroi, and the expenditure Rs. 18,000. It possesses the Randhīr College, a high school, a girls' school, and a hospital.

Karā.—Place of historic interest in ALLAHĀBAD DISTRICT, United Provinces.

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